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CARPENTER'S WORLD TRAVELS

—

Familiar Talks About Countries and Peoples

WITH THE AUTHOR ON THE SPOT AND THE READER IN HIS HOME, BASED ON THREE HUNDRED THOUSAND MILES OF TRAVEL OVER THE GLOBE

CAIRO TO KISUMU

EGYPT—THE SUDAN—KENYA COLONY

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ON THE GREAT ASWAN DAM

"The dam serves also as a bridge over the Nile. I crossed on a car, my motive power being two Arab boys who trotted behind."

CARPENTER'S WORLD TRAVELS

CAIRO TO KISUMU

Egypt—The Sudan—
Kenya Colony

BY

FRANK G. CARPENTER
LITT.D., F.R.G.S.

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DOUBLEDAY, PAGE & COMPANY
1925

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UNITED STATES AT THE COUNTRY LIFE
PRESS, GARDEN CITY, N. Y.

ACKNOWLEDGMENTS

IN THE publication of this book on Egypt, the Sudan, and Kenya Colony, I wish to thank the Secretary of State for letters which have given me the assistance of the official representatives of our government in the countries visited. I thank also our Secretary of Agriculture and our Secretary of Labour for appointing me an Honorary Commissioner of their Departments in foreign lands. Their credentials have been of the greatest value, making available sources of information seldom open to the ordinary traveller. To the British authorities in the regions covered by these travels I desire to express my thanks for exceptional courtesies which have greatly aided my investigations.

I would also thank Mr. Dudley Harmon, my editor, and Miss Ellen McBryde Brown and Miss Josephine Lehmann for their assistance and coöperation in the revision of the notes dictated or penned by me on the ground.

While most of the illustrations are from my own negatives, these have been supplemented by photographs from the Publishers' Photo Service and the American Geographic Society.

F. G. C.

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CAIRO TO KISUMU

EGYPT—THE SUDAN—KENYA COLONY

CAIRO TO KISUMU

CHAPTER I

JUST A WORD BEFORE WE START

THIS volume on Egypt, Nubia, the Sudan, and Kenya Colony is based upon notes made during my several trips to this part of the world. At times the notes are published just as they came hot from my pen, taking you back, as it were, to the occasion on which they were written. Again they are modified somewhat to accord with present conditions.

For instance, I made my first visit to Egypt as a boy, when Arabi Pasha was fomenting the rebellion that resulted in that country's being taken over by the British. I narrowly escaped being in the bombardment of Alexandria and having a part in the wars of the Mahdi, which came a short time thereafter. Again, I was in Egypt when the British had brought order out of chaos, and put Tewfik Pasha on the throne as Khedive. I had then the talk with Tewfik, which I give from the notes I made when I returned from the palace, and I follow it with a description of my audience with his son and successor, Abbas Hilmi, sixteen years later. Now the British have given Egypt a nominal independence, and the Khedive has the title of King.

In the Sudan I learned much of the Mahdi through

my interview with Sir Francis Reginald Wingate, then the Governor General of the Sudan and Sirdar of the British army at Khartum, and later gained an insight into the relations of the British and the natives from Earl Cromer, whom I met at Cairo. These talks enable one to understand the Nationalist problems of the present and to appreciate some of the changes now going on.

In Kenya Colony, which was known as British East Africa until after the World War, I was given especial favours by the English officials, and many of the plans that have since come to pass were spread out before me. I then tramped over the ground where Theodore Roosevelt made his hunting trips through the wilds, and went on into Uganda and to the source of the Nile.

These travels have been made under all sorts of conditions, but with pen and camera hourly in hand. The talks about the Pyramids were written on the top and at the foot of old Cheops, those about the Nile in harness on the great Aswan Dam, and those on the Suez Canal either on that great waterway or on the Red Sea immediately thereafter. The matter thus partakes of the old and the new, and of the new based upon what I have seen of the old. If it be too personal in character and at times seems egotistic, I can only beg pardon by saying—the story is mine, and as such the speaker must hold his place in the front of the stage.

Beggars and street sellers alike believe that every foreigner visiting Egypt is not only as rich as Crœsus but also a little touched in the head where spending is concerned, and therefore fair game for their extravagant demands.

Among the upper classes an ever-lighter face covering is being adopted. This is indicative of the advance of the Egyptian woman toward greater freedom.

CHAPTER II

THE GATEWAY TO EGYPT

I AM again in Alexandria, the great seaport of the valley of the Nile. My first visit to it was just before Arabi Pasha started the rebellion which threw Egypt into the hands of the British. I saw it again seven years later on my way around the world. I find now a new city, which has risen up and swallowed the Alexandria of the past.

The Alexandria of to-day stands upon the site of the greatest of the commercial centres of antiquity, but its present buildings are as young as those of New York, Chicago, or Boston. It is one of the boom towns of the Old World, and has all grown up within a century. When George Washington was president it was little more than a village; it has now approximately a half million inhabitants.

This is a city with all modern improvements. It has wide streets as well paved as those of Washington, public squares that compare favourably with many in Europe, and buildings that would be an ornament to any metropolis on our continent. It is now a city of street cars and automobiles. Its citizens walk or ride to its theatres by the light of electricity, and its rich men gamble by reading the ticker in its stock exchange. It is a town of big hotels, gay cafés, and palaces galore. In addition to its several hundred thousand Mohammedans, it has a large popu-

lation of Greeks, Italians, and other Europeans, among them some of the sharpest business men of the Mediterranean lands. Alexandria has become commercial, money making, and fortune hunting. The rise and fall of stocks, the boom in real estate, and the modern methods of getting something for nothing are its chief subjects of conversation, and the whole population is after the elusive piastre and the Egyptian pound as earnestly as the American is chasing the nickel and the dollar.

The city grows because it is at the sea-gate to Egypt and the Sudan. It waxes fat on the trade of the Nile valley and takes toll of every cent's worth of goods that comes in and goes out. More than four thousand vessels enter the port every year and in the harbour there are steamers from every part of the world. I came to Egypt from Tripoli via Malta, where I took passage on a steamer bound for India and Australia, and any week I can get a ship which within fifteen days will carry me back to New York.

One of the things to which Alexandria owes its greatness is the canal that Mehemet Ali, founder of the present ruling dynasty of Egypt, had dug from this place to the Nile. This remarkable man was born the son of a poor Albanian farmer and lived for a number of years in his little native port as a petty official and tobacco trader. He first came into prominence when he led a band of volunteers against Napoleon in Egypt. Later still he joined the Sultan of Turkey in fighting the Mamelukes for the control of the country. The massacre of the Mamelukes in 1811 left the shrewd Albanian supreme in the land, and, after stirring up an Egyptian question that set the Powers of Europe more or less by the ears with each

other and with the Sultan of Turkey, he was made Viceroy of Egypt, with nominal allegiance to the Turkish ruler. When he selected Alexandria as his capital, it was a village having no connection with the Nile. He dug a canal fifty miles long to that great waterway, through which a stream of vessels is now ever passing, carrying goods to the towns of the valley and bringing out cotton, sugar, grain, and other products, for export to Europe. The canal was constructed by forced labour. The peasants, or *fellaheen*, to the number of a quarter of a million, scooped the sand out with their hands and carried it away in baskets on their backs. It took them a year to dig that fifty-mile ditch, and they were so overworked that thirty thousand of them died on the job.

Ismail Pasha, grandson of Mehemet Ali, made other improvements on the canal and harbour, and after the British took control of Egypt they bettered Alexandria in every possible way.

It has now one of the best of modern harbours. The port is protected by a breakwater two miles in length, and the biggest ocean steamers come to the quays. There are twenty-five hundred acres of safe anchorage inside its haven, while the arrangements for coaling and for handling goods are unsurpassed.

These conditions are typical of the New Egypt. Old Mother Nile, with her great dams and new irrigation works, has renewed her youth and is growing in wealth like a jimson weed in an asparagus bed. When I first saw the Nile, its valley was a country of the dead, with obelisks and pyramids as its chief landmarks. Then its most interesting characters were the mummified kings of more than twenty centuries ago and the principal visitors were

antiquity hunters and one-lunged tourists seeking a warm winter climate. These same characters are here to-day, but in addition have come the ardent dollar chaser, the capitalist, and the syndicate. Egypt is now a land of banks and stock exchanges. It is thronged with civil engineers, irrigation experts, and men interested in the development of the country by electricity and steam. The delta, or the great fan of land which begins at Cairo and stretches out to the Mediterranean, is gridironed with steel tracks and railroad trains, continuing almost to the heart of central Africa.

I find Egypt changing in character. The Mohammedans are being corrupted by the Christians, and the simple living taught by the Koran, which commands the believer to abstain from strong drink and other vices, has become infected with the gay and giddy pleasures of the French. In many cases the system of the harem is being exchanged for something worse. The average Moslem now has but one wife, but in many cases he has a sweetheart in a house around the corner, "and the last state of that man is worse than the first."

The ghouls of modern science are robbing the graves of those who made the Pyramids. A telephone line has been stretched out of Cairo almost to the ear of the Sphinx, and there is a hotel at the base of the Pyramid of Cheops where English men and women drink brandy and soda between games of tennis and golf.

The Egypt of to-day is a land of mighty hotels and multitudinous tourists. For years it has been estimated that Americans alone spend several million dollars here every winter, and the English, French, and other tourists almost as much. It is said that in the average season ten

Cotton warehouses and docks extend for a mile along the Mahmudiyeh Canal connecting the port of Alexandria with the Nile River, and the prosperity of the city rises and falls with the price of cotton in the world's markets.

Nubian women sell fruit and flowers on the streets of Alexandria to-day, but once their kings ruled all Egypt and defeated the armies of Rome. They became early converts to Christianity but later adopted Mohammedanism.

thousand Americans visit the Nile valley and that it costs each one of them at least ten dollars for every day of his stay.

When I first visited this country the donkey was the chief means of transport, and men, women, and children went about on long-eared beasts, with Arab boys in blue gowns following behind and urging the animals along by poking sharp sticks into patches of bare flesh, as big as a dollar, which had been denuded of skin for the purpose. The donkey and the donkey boy are here still, but I can get a street car in Alexandria that will take me to any part of the town, and I frequently have to jump to get out of the way of an automobile. There are cabs everywhere, both Alexandria and Cairo having them by thousands.

The new hotels are extravagant beyond description. In the one where I am now writing the rates are from eighty to one hundred piastres per day. Inside its walls I am as far from Old Egypt as I would be in the Waldorf Astoria in New York. The servants are French-speaking Swiss in "swallow-tails", with palms itching for fees just as do those of their class in any modern city. In my bedroom there is an electric bell, and I can talk over the telephone to our Consul General at Cairo. On the register of the hotel, which is packed with guests, I see names of counts by the score and lords by the dozen. The men come to dinner in steel-pen coats and the women in low-cut evening frocks of silk and satin. There is a babel of English, French, and German in the lounge while the guests drink coffee after dinner, and the only evidences one perceives of a land of North Africa and the Moslems are the tall minarets which here and there reach above the other buildings of the city, and the voices of the muezzins

as they stand beneath them and call the Mohammedans to prayer.

The financial changes that I have mentioned are by no means confined to the Christians. The natives have been growing rich, and the Mohammedans for the first time in the history of Egypt have been piling up money. Since banking and money lending are contrary to the Koran, the Moslems invest their surplus in real estate, a practice which has done much to swell all land values.

Egypt is still a country of the Egyptians, notwithstanding the overlordship of the British and the influx of foreigners. It has now more than ten million people. Of these, three out of every four are either Arabs or Copts. Most of them are Mohammedans, although there are, all told, something like eight hundred and sixty thousand Copts, descendants of the ancient Egyptians, who have a rude kind of Christianity, and are, as a body, better educated and wealthier than the Mussulmans.

The greater part of the foreign population of Egypt is to be found in Alexandria and Cairo, and in the other towns of the Nile valley, as well as in Suez and Port Said. There are more of the Greeks than of any other nation. For more than two thousand years they have been exploiting the Egyptians and the Nile valley and are to-day the sharpest, shrewdest, and most unscrupulous business men in it. They do much of the banking and money lending and until the government established banks of its own and brought down the interest rate they demanded enormous usury from the Egyptian peasants. It is said that they loaned money on lands and crops at an average charge of one hundred and fifty per cent. per annum.

This was changed, however, by the establishment of

the Agricultural Bank. The government, which controls that bank, lends money to the farmers at eight per cent. to within half of the value of their farms. To-day, since the peasants all over Egypt can get money at this rate, the Greeks have had to reduce theirs.

The Italians number about forty thousand and the French twenty thousand. There are many Italian shops here in Alexandria, while there are hundreds of Italians doing business in Cairo. They also furnish some of the best mechanics. Many of them are masons and the greater part of the Aswan Dam and similar works were constructed by them.

There are also Germans, Austrians, and Russians, together with a few Americans and Belgians. The British community numbers a little over twenty thousand. Among the other foreigners are some Maltese and a few hundred British East Indians.

Sitting here at Alexandria in a modern hotel surrounded by the luxuries of Paris or New York, I find it hard to realize that I am in one of the very oldest cities of history. Yesterday I started out to look up relics of the past, going by mile after mile of modern buildings, though I was travelling over the site of the metropolis that flourished here long before Christ was born. From the antiquarian's point of view, the only object of note still left is Pompey's Pillar and that is new in comparison with the earliest history of Old Egypt, as it was put up only sixteen hundred years ago, when Alexandria was already one of the greatest cities of the world. The monument was supposed to stand over the grave of Pompey, but it was really erected by an Egyptian prefect in honour of the Roman emperor, Diocletian. It was at one time a landmark for sailors,

for there was always upon its top a burning fire which was visible for miles over the Mediterranean Sea. The pillar is a massive Corinthian column of beautifully polished red granite as big around as the boiler of a railroad locomotive and as high as a ten-story apartment house. It consists of one solid block of stone, standing straight up on a pedestal. It was dug out of the quarries far up the Nile valley, brought down the river on rafts and in some way lifted to its present position. In their excavations about the pedestal, the archæologists learned of its comparatively modern origin and, digging down into the earth far below its foundation, discovered several massive stone sphinxes. These date back to old Alexandria and were chiselled several hundreds of years before Joseph and Mary brought the baby Jesus on an ass, across the desert, into the valley of the Nile that he might not be killed by Herod the King.

This city was founded by Alexander the Great three hundred and thirty-two years before Christ was born. It probably had then more people than it has to-day, for it was not only a great commercial port, but also a centre of learning, religion, and art. It is said to have had the grandest library of antiquity. The manuscripts numbered nine hundred thousand and artists and students came from all parts to study here. At the time of the Cæsars it was as big as Boston, and when it was taken by the Arabs, along about 641 A.D., it had four thousand palaces, four hundred public baths, four hundred places of amusement, and twelve thousand gardens. When Alexander the Great founded it he brought in a colony of Jews, and at the time the Mohammedans came the Jewish quarter numbered forty thousand.

At Alexandria St. Mark first preached Christianity to

the Egyptians, and subsequently the city became one of the Christian centres of the world. Here Hypatia lived, and here, as she was about to enter a heathen temple to worship, the Christian monks, led by Peter the Reader, tore her from her chariot and massacred her. They scraped her live flesh from her bones with oyster shells, and then tore her body limb from limb.

Here, too, Cleopatra corrupted Cæsar and later brought Marc Antony to a suicidal grave. There are carvings of the enchantress of the Nile still to be seen on some of the Egyptian temples far up the river valley. I have a photograph of one which is in good preservation in the Temple of Denderah. Its features are Greek rather than Egyptian, for she was more of a Greek than a Simon-pure daughter of the Nile. She was not noted for beauty, but she had such wonderful charm of manner, sweetness of voice, and brilliancy of intellect, that she was able to allure and captivate the greatest men of her time.

Cleopatra's first Roman lover was Julius Cæsar, who came to Alexandria to settle the claims of herself and her brother to the throne of Egypt. Her father, who was one of the Ptolemies, had at his death left his throne to her younger brother and herself, and according to the custom the two were to marry and reign together. One of the brother's guardians, however, had dethroned and banished Cleopatra. She was not in Egypt when Cæsar came. It is not known whether it was at Cæsar's request or not, but the story goes that she secretly made her way back to Alexandria, and was carried inside a roll of rich Syrian rugs on the back of a servant to Cæsar's apartments. Thus she was presented to the mighty Roman and so delighted him that he restored her to the

throne. When he left for Rome some time later he took her with him and kept her there for a year or two. After the murder of Cæsar, Cleopatra, who had returned to Egypt, made a conquest of Marc Antony and remained his sweetheart to the day when he committed suicide upon the report that she had killed herself. Antony had then been conquered by Octavianus, his brother-in-law, and it is said that Cleopatra tried to capture the heart of Octavianus before she took her own life by putting the poisonous asp to her breast.

CHAPTER III

KING COTTON ON THE NILE

THE whole of to-day has been spent wandering about the cotton wharves of Alexandria. They extend for a mile or so up and down the Mahmudiyeh Canal, which joins the city to the Nile, and are flanked on the other side by railroads filled with cotton trains from every part of Egypt. These wharves lie under the shadow of Pompey's Pillar and line the canal almost to the harbour. Upon them are great warehouses filled with bales and bags. Near by are cotton presses, while in the city itself is a great cotton exchange where the people buy and sell, as they do at Liverpool, from the samples of lint which show the quality of the bales brought in from the plantations.

Indeed, cotton is as big a factor here as it is in New Orleans, and the banks of this canal make one think of that city's great cotton market. The warehouses are of vast extent, and the road between them and the waterway is covered with bales of lint and great bags of cotton seed. Skullcapped blue-gowned Egyptians sit high up on the bales on long-bedded wagons hauled by mules. Other Egyptians unload the bales from the cars and the boats and others carry them to the warehouses. They bear the bales and the bags on their backs, while now and then a man may be seen carrying upon his head a bag of loose cotton weighing a couple of hundred pounds. The

cotton seed is taken from the boats in the same way, seed to the amount of three hundred pounds often making one man's load.

Late in the afternoon I went down to the harbour to see the cotton steamers. They were taking on cargoes for Great Britain, Russia, France, Germany, and the United States. This staple forms three fourths of the exports of Egypt. Millions of pounds of it are annually shipped to the United States, notwithstanding the fact that we raise more than two thirds of all the cotton of the world. Because of its long fibre, there is always a great demand for Egyptian cotton, which is worth more on the average than that of any other country.

For hundreds of years before the reign of that wily old tyrant, Mehemet Ali, whose rule ended with the middle of the nineteenth century, Egypt had gone along with the vast majority of her people poor, working for a wage of ten cents or so a day, and barely out of reach of starvation all the time. Mehemet Ali saw that what she needed to become truly prosperous and raise the standard of living was some crop in which she might be the leader. It was he who introduced long-staple cotton, a product worth three times as much as the common sort, and showed what it could do for his country. Since then King Cotton has been the money maker of the Nile valley, the great White Pharaoh whom the modern Egyptians worship. He has the majority of the Nile farmers in his employ and pays them royally. He has rolled up a wave of prosperity that has engulfed the Nile valley from the Mediterranean to the cataracts and the prospects are that he will continue to make the country richer from year to year. The yield is steadily increasing and with the improved irrigation

Though cotton is the big cash crop of Egypt, small flocks of sheep are kept on many of the farms and the women spin the wool for the use of the family.

Sugar is Egypt's crop of second importance. Heavy investments of French and British capital in the Egyptian industry were first made when political troubles curtailed Cuba's production.

methods it will soon be greater than ever. From 1895 to 1900 its average annual value was only forty-five million dollars; but after the Aswan Dam was completed it jumped to double that sum.

The greater part of Upper and Lower Egypt can be made to grow cotton, and cotton plantations may eventually cover over five million five hundred thousand acres. If only fifty per cent. of this area is annually put into cotton it will produce upward of two million bales per annum, or more than one sixth as much as the present cotton crop of the world. In addition to this, there might be a further increase by putting water into some of the oases that lie in the valley of the Nile outside the river bottom, and also by draining the great lakes about Alexandria and in other parts of the lower delta.

Egypt has already risen to a high place among the world's cotton countries. The United States stands first, British India second, and Egypt third. Yet Egypt grows more of this staple for its size and the area planted than any other country on the globe. Its average yield is around four hundred and fifty pounds per acre, which is far in excess of ours. Our Department of Agriculture says that our average is only one hundred and ninety pounds per acre, although we have, of course, many acres which produce five hundred pounds and more.

It is, however, because of its quality rather than its quantity that Egyptian cotton holds such a commanding position in the world's markets. Cotton-manufacturing countries must depend on Egypt for their chief supply of long-staple fibre. There are some kinds that sell for double the amount our product brings. It is, in fact, the best cotton grown with the exception of the Sea Island

raised on the islands off the coasts of Georgia and South Carolina. The Sea Island cotton has a rather longer fibre than the Egyptian. The latter is usually brown in colour and is noted for its silkiness, which makes it valuable for manufacturing mercerized goods. We import an enormous quantity of it to mix with our cotton, and we have used the Egyptian seed to develop a species known as American-Egyptian, which possesses the virtues of both kinds.

There is a great difference in the varieties raised, according to the part of the Nile valley from which each kind comes. The best cotton grows in the delta, which produces more than four fifths of the output.

A trip through the Nile cotton fields is an interesting one. The scenes there are not in the least like those of our Southern states. Much of the crop is raised on small farms and every field is marked out with little canals into which the water is introduced from time to time. There are no great farm houses in the landscape and no barns. The people live in mud villages from which they go out to work in the fields. They use odd animals for ploughing and harrowing and the crop is handled in a different way from ours.

Let me give you a few of the pictures I have seen while travelling through the country. Take a look over the delta. It is a wide expanse of green, spotted here and there with white patches. The green consists of alfalfa, Indian corn, or beans. The white is cotton, stretching out before me as far as my eye can follow it.

Here is a field where the lint has been gathered. The earth is black, with windrows of dry stalks running across it. Every stalk has been pulled out by the roots and piled

up. Farther on we see another field in which the stalks have been tied into bundles. They will be sold as fuel and will produce a full ton of dry wood to the acre. There are no forests in Egypt, where all sorts of fuel are scarce. The stalks from one acre will sell for two dollars or more. They are used for cooking, for the farm engines on the larger plantations, and even for running the machinery of the ginning establishments. In that village over there one may see great bundles of them stored away on the flat roofs of the houses. Corn fodder is piled up beside them, the leaves having been torn off for stock feed. A queer country this, where the people keep their wood piles on their roofs!

In that field over there they are picking cotton. There are scores of little Egyptian boys and girls bending their dark brown faces above the white bolls. The boys for the most part wear blue gowns and dirty white skullcaps, though some are almost naked. The little girls have cloths over their heads. All are barefooted. They are picking the fibre in baskets and are paid so much per hundred pounds. A boy will gather thirty or forty pounds in a day and does well if he earns as much as ten cents.

The first picking begins in September. After that the land is watered, and a second picking takes place in October. There is a third in November, the soil being irrigated between times. The first and second pickings, which yield the best fibre, are kept apart from the third and sold separately.

After the cotton is picked it is put into great bags and loaded upon camels. They are loading four in that field at the side of the road. The camels lie flat on the ground, with their long necks stretched out. Two bags, which to-

gether weigh about six hundred pounds, make a load for each beast. Every bag is as long and wide as the mattress of a single bed and about four feet thick. Listen to the groans of the camels as the freight is piled on. There is one actually weeping. We can see the tears run down his cheeks.

Now watch the awkward beasts get up. Each rises back end first, the bags swaying to and fro as he does so. How angry he is! He goes off with his lower lip hanging down, grumbling and groaning like a spoiled child. The camels make queer figures as they travel. The bags on each side their backs reach almost to the ground, so that the lumbering creatures seem to be walking on six legs apiece.

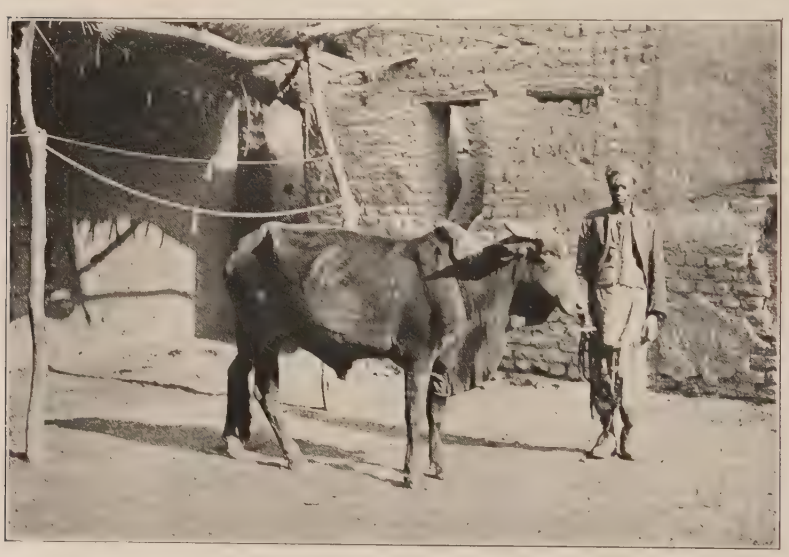
Looking down the road, we see long caravans of camels loaded with bales, while on the other side of that little canal is a small drove of donkeys bringing in cotton. Each donkey is hidden by a bag that completely covers its back and hides all but its little legs.

In these ways the crop is brought to the railroad stations and to the boats on the canals. The boats go from one little waterway to another until they come into the Mahmudiyeh Canal, and thence to Alexandria. During the harvesting season the railroads are filled with cotton trains. Some of the cotton has been ginned and baled upon the plantations, and the rest is in the seed to be ginned at Alexandria. There are ginning establishments also at the larger cotton markets of the interior. Many of them are run by steam and have as up-to-date machinery as we have. At these gins the seed is carefully saved and shipped to Alexandria by rail or by boat.

The Egyptians put more work on their crop than our

The Nile bridge swings back to let through the native boats sailing down to Alexandria with cargoes of cotton and sugar grown on the irrigated lands farther upstream.

A rainless country, Egypt must dip up most of its water from the Nile, usually by the crude methods of thousands of years ago. Here an ox is turning the creaking *sakieh,* a wheel with jars fastened to its rim.



Egypt is a land that resists change, where even the native ox, despite the frequent importation of foreign breeds, has the same features as are found in the picture writings of ancient times. He is a cousin of the zebu.

Southern farmers do. In the first place, the land has to be ploughed with camels or buffaloes and prepared for the planting. It must be divided into basins, each walled around so that it will hold water, and inside each basin little canals are so arranged that the water will run in and out through every row. The whole field is cut up into these beds, ranging in size from twenty-four to seventy-five feet square.

The cotton plants are from fourteen to twenty inches apart and set in rows thirty-five inches from each other. It takes a little more than a bushel of seed to the acre. The seeds are soaked in water before planting, any which rise to the surface being thrown away. The planting is done by men and boys at a cost of something like a dollar an acre. The seeds soon sprout and the plants appear in ten or twelve days. They are thinned by hand and water is let in upon them, the farmers taking care not to give them too much. The plants are frequently hoed and have water every week or so, almost to the time of picking. The planting is usually done in the month of March, and, as I have said, the first picking begins along in September.

I have been told that cotton, as it is grown here, exhausts the soil and that the people injure the staple and reduce the yield by overcropping. It was formerly planted on the same ground only every third year, the ground being used in the interval for other crops or allowed to lie fallow. At present some of the cotton fields are worked every year and others two years out of three. On most of the farms cotton is planted every other year, whereas the authorities say that in order to have a good yield not more than forty per cent. of a man's farm should be kept to this crop from year to year. Just as in our Southern

states, a year of high cotton prices is likely to lead to overcropping and reduced profits, and *vice versa*. Another trouble in Egypt, and one which it would seem impossible to get around, is the fact that cotton is practically the only farm crop. This puts the *fellaheen* more or less at the mercy of fluctuating prices and changing business conditions; so that, like our cottom farmers of the South, they have their lean years and their fat years.

Egypt also has had a lot of trouble with the pink boll weevil. This pestiferous cotton worm, which is to be found all along the valley of the Nile, has also done great damage on the plantations of the Sudan, a thousand miles south of Alexandria. It is said that in one year it destroyed more than ten million dollars' worth of cotton and that hundreds of the smaller farmers were ruined. The government has been doing all it can to wipe out the plague, but is working under great disadvantages. The Egyptian Mohammedans are fatalists, looking upon such things as the boll weevil as a judgment of God and believing they can do nothing to avert the evil. Consequently, the government had to inaugurate a system of forced labour. It made the boys and men of the cotton region turn out by the thousands to kill the worms under the superintendence of officials. The results were excellent, and as those who were forced into the work were well paid the farmers are beginning to appreciate what has been done for them.

The government helps the cotton planters in other ways. Its agricultural department sends out selected seed for planting a few thousand acres to cotton, contracting with each man who takes it that the government will buy his seed at a price above that of the market. The seed com-

ing in from that venture is enough to plant many more thousands of acres, and this is distributed at cost to such of the farmers as want it. More than one quarter of all seed used has latterly been supplied in this way.

The government has also induced the planters to use artificial fertilizers. It began this some years ago, when it was able to distribute thirty thousand dollars' worth of chemical fertilizer, and the demand so increased that within a few years more than ten times as much was distributed annually.

CHAPTER IV

THROUGH OLD EGYPT TO CAIRO

ON MY way to Cairo I have taken a run through the delta, crossing Lower Egypt to the Suez Canal and returning through the Land of Goshen.

The soil is as rich and the grass is as green now as it was when Joseph picked out this land as the best in Egypt for his famine-stricken father Jacob. Fat cattle by the hundreds grazed upon the fields, camels with loads of hay weighing about a ton upon their backs staggered along the black roads. Turbaned Egyptians rode donkeys through the fields, and the veiled women of this Moslem land crowded about the train at the villages. On one side a great waste of dazzling yellow sand came close to the edge of the green fields, and we passed grove after grove of date-palm trees holding their heads proudly in the air, and shaking their fan-like leaves to every passing breeze. They seemed to whisper a requiem over the dead past of this oldest of the old lands of the world.

As we neared Cairo and skirted the edge of the desert, away off to the right against the hazy horizon rose three ghost-like cones of gray out of the golden sand. These were the Pyramids, and the steam engine of the twentieth century whistled out a terrible shriek as we came in sight of them. To the left were the Mokattam Hills, with the citadel which Saladin built upon them, while to the right

The *sakka,* or water carrier, fills his pigskin bag at the river, and then peddles it out, with the cry: "O! may God recompense me," announcing his passage through the streets of village or town.

Up and down the slippery banks of the Nile goes the centuries-long procession of *fellah* women bearing head burdens—water-jars or baskets of earth from excavations.

flowed the great broad-bosomed Nile, the mother of the land of Egypt, whose earth-laden waters have been creating soil throughout the ages, and which to-day are still its source of life.

Egypt, in the words of Herodotus, is the gift of the Nile. This whole rainless country was once a bed of sterile sand so bleak and bare that not a blade of grass nor a shrub of cactus would grow upon it. This mighty river, rising in the heights of Africa and cutting its way through rocks and hills, has brought down enough sediment to form the tillable area of Egypt. South of Cairo, for nearly a thousand miles along its banks, there extends a strip of rich black earth which is only from three to nine miles wide. Below the city the land spreads out in a delta shaped somewhat like the segment of a circle, the radii of which jut out from Cairo, while the blue waters of the Mediterranean edge its arc. This narrow strip and fan form the arable land of Egypt. The soil is nowhere more than thirty-five feet deep. It rests on a bed of sand. On each side of it are vast wastes of sand and rock, with not a spot of green to relieve the ceaseless glare of the sun. The green goes close to the edge of the desert, where it stops as abruptly as though it were cut off by a gardener. Nearly everywhere up the Nile from Cairo the strip is so narrow that you can stand at one side of the valley and see clear across it.

Thus, in one sense, Egypt is the leanest country in the world, but it is the fattest in the quality of the food that nature gives it. Through the ages it has had one big meal every year. At the inundation of the Nile, for several months the waters spread over the land and were allowed to stand there until they dropped the rich, black fertilizing

sediment brought down from the African mountains. This sediment has produced from two to three crops a year for Egypt through the centuries and for a long time was the sole manure that the land had. The hundreds of thousands of cattle, donkeys, camels, and sheep that feed off the soil give nothing back to it, for their droppings are gathered up by the peasant women and girls, patted into shape, and dried for use as fuel. Until late years the only manure that was used in any part of the country was that of pigeons and chickens, or the crumbled ruins of ancient towns, which, lying through thousands of years, have become rubbish full of fertilizing properties. Recently, as I have said, the use of artificial fertilizers has been encouraged with excellent results.

The irrigation of Egypt is now conducted on scientific lines. The water is not allowed to spread over the country as it was years ago, but the arable area is cut up by canals, and there are immense irrigating works in the delta, to manage which during the inundation hundreds of thousands of men are required. Just at the point of the delta, about twelve miles above Cairo, is a great dam, or barrage, that raises the waters of the Nile into a vast canal from which they flow over the fan-like territory of Lower Egypt. All through Egypt one sees men scooping the water up in baskets from one level to another, and everywhere he finds the buffalo, the camel, or donkey turning the wheels that operate the crude apparatus for getting the water out of the river and onto the land.

But let me put into a nutshell the kernel of information we need to understand this wonderful country. We all know how Egypt lies on the map of northeastern Africa, extending a thousand miles or more southward from the

Mediterranean Sea. The total area, including the Nubian Desert, the region between the Nile and the Red Sea, and the Sinai Peninsula, is more than seven times as large as the State of New York, but the real Egypt, that is, the cultivated and settled portion comprising the Nile valley and delta, lacks just four square miles of being as large as our State of Maryland. Of this portion, fully one third is taken up in swamps, lakes, and the surface of the Nile, as well as in canals, roads, and plantations of dates, so that the Egypt of farms that actually supports the people is only about as big as Massachusetts. Though this contains little more than eight thousand square miles, nevertheless its population is nearly one eighth of ours. Crowd every man, woman, and child who lives in the United States into four states the size of Maryland, and you have some idea of the density of the population here. Belgium, that hive of industry, with its mines of iron and coal and its myriad factories, has only about six hundred people per square mile; and China, the leviathan of Asia, has less than two hundred and fifty. Little Egypt is supporting something like one thousand per square mile of its arable area; and nearly all of them are crowded down near the Mediterranean.

Of these people, about nine tenths are Mohammedans, one twelfth Christians, Copts, and others; and less than one half of one per cent. Jews. Among the Christians are many Greeks of the Orthodox Church and Italian Roman Catholics from the countries on the Mediterranean Sea.

Nature has much to do with forming the character and physique of the men who live close to her, and in Egypt the unvarying soil, desert, sky, and river, make the people

who have settled in the country become, in the course of a few generations, just like the Egyptians themselves. Scientists say that the Egyptian peasantry of to-day is the same as in the past, and that this is true even of the cattle. Different breeds have been imported from time to time only to change into the Egyptian type, and the cow to-day is the same as that pictured in the hieroglyphics of the tombs made thousands of years ago. The Egyptian cow is like the Jersey in shape and form save that its neck is not quite so delicate and its horns are a trifle shorter. Its colour is a rich red. Its milk is full of oil, and its butter is yellow. It has been asserted that the Jersey cow originally came from Egypt, and was taken to the Island of Jersey by the Phœnicians in some of their voyages ages ago.

But to return to the Nile, the source of existence of this great population. Next to the Mississippi, with the Missouri, it is the longest river of the world. The geographers put its length at from thirty-seven hundred to four thousand miles. It is a hundred miles or so longer than the Amazon, and during the last seventeen hundred miles of its course not a single branch comes in to add to its volume. For most of the way it flows through a desert of rock and sand as dry as the Sahara. In the summer many of the winds that sweep over Cairo are like the blast from a furnace, and in Upper Egypt a dead dog thrown into the fields will turn to dust without an offensive odour. The dry air sucks the moisture out of the carcass so that there is no corruption.

Nearly all of the cultivated lands lie along the Nile banks and depend for their supply of water on the rise of the river, caused by the rains in the region around its sources. When

the Nile is in flood the waters are coloured dark brown by the silt brought down from the high lands of Abyssinia. When it is low, as in June, they are green, because of the growth of water plants in the upper parts of the river. At flood time the water is higher than the land and the fields are protected by banks or dikes along the river. If these banks break, the fields are flooded and the crops destroyed.

We are accustomed to look upon Egypt as a very hot country. This is not so. The greater part of it lies just outside the tropics, so that it has a warm climate and a sub-tropical plant life. The hottest month is June and the coldest is January. Ice sometimes forms on shallow pools in the delta, but there is no snow, although hail storms occur occasionally, with very large stones. There is no rain except near the coast and a little near Cairo. Fogs are common in January and February and it is frequently damp in the cultivated tracts.

For centuries Egypt has been in the hands of other nations. The Mohammedan Arabs and the Ottoman Turks have been bleeding her since their conquest. Greece once fed off her. Rome ate up her substance in the days of the Cæsars and she has had to stake the wildest extravagancies of the khedives of the past. It must be remembered that Egypt is almost altogether agricultural, and that all of the money spent in and by it must come from what the people can raise on the land. The khedives and officials have piped, and Egypt's farmers have had to pay.

It was not long before my second visit to Egypt that the wastefulness and misrule of her officials had practically put her in the hands of a receiver. She had gone into

debt for half a billion dollars to European creditors—English, French, German, and Spanish—and England and France had arranged between them to pull her out. Later France withdrew from the agreement and Great Britain undertook the job alone.

At that time the people were ground down to the earth and had barely enough for mere existence. Taxes were frightfully high and wages pitifully low. The proceeds from the crops went mostly to Turkey and to the bankers of Europe who had obtained the bonds given by the government to foreigners living in Egypt. In fact, they had as hard lives as in the days of the most tyrannical of the Pharaohs.

But since that time the British have had a chance to show what they could do, irrigation projects and railroad schemes have been put through, cotton has come into its own, and I see to-day a far more prosperous land and people than I did at the end of the last century.

CHAPTER V

FELLAHEEN ON THEIR FARMS

FOR the last month I have been travelling through the farms of the Nile valley. I have visited many parts of the delta, a region where the tourist seldom stops, and have followed the narrow strip that borders the river for several hundred miles above Cairo.

The delta is the heart of Egypt. It has the bulk of the population, most of the arable land, the richest soil, and the biggest crops. While it is one of the most thickly settled parts of the world, it yields more to the acre than any other region on earth, and its farm lands are the most valuable. I am told that the average agricultural yield for all Europe nets a profit of thirty-five dollars per acre, but that of Lower Egypt amounts to a great deal more. Some lands produce so much that they are renting for fifty dollars an acre, and there are instances where one hundred dollars is paid.

I saw in to-day's newspapers an advertisement of an Egyptian land company, announcing an issue of two and one half million dollars' worth of stock. The syndicate says in its prospectus that it expects to buy five thousand acres of land at "the low rate of two hundred dollars per acre," and that by spending one hundred and fifty thousand dollars it can make that land worth four hundred dollars per acre within three years. Some of this land

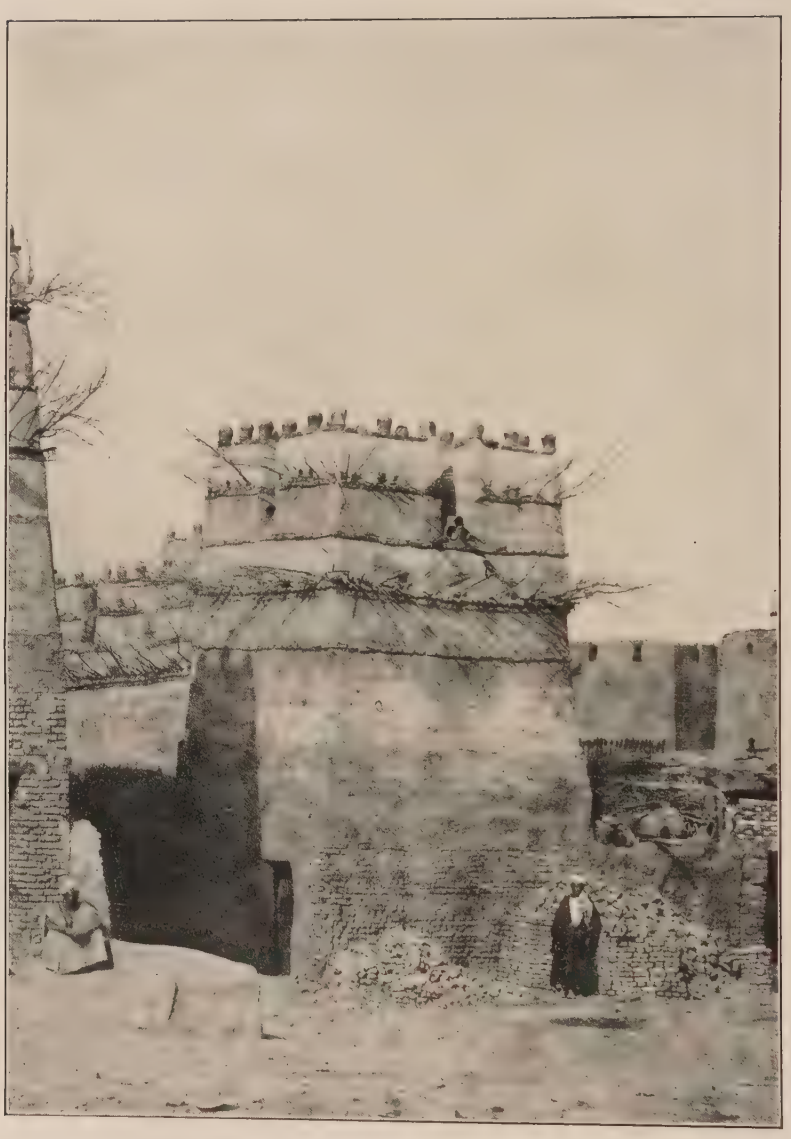
would now bring from two hundred and fifty to three hundred dollars per acre, and is renting for twenty dollars per acre per annum. The tract lies fifty miles north of Cairo and is planted in cotton, wheat, and barley.

Such estates as the above do not often come into the market, however. Most of Egypt is in small farms, and little of it is owned by foreigners. Six sevenths of the farms belong to the Egyptians, and there are more than a million native land owners. Over one million acres are in tracts of from five to twenty acres each. Many are even less than an acre in size. The number of proprietors is increasing ever year and the *fellaheen*, or *fellahs*, are eager to possess land of their own. It used to be that the Khedive had enormous estates, but when the British Government took possession some of the khedivial acres came to it. These large holdings have been divided and have been sold to the *fellaheen* on long-time and easy payments. Many who then bought these lands have paid for them out of their crops and are now rich. As it is to-day there are but a few thousand foreigners who own real estate in the valley of the Nile.

The farmers who live here in the delta have one of the garden spots of the globe to cultivate. The Nile is building up more rich soil every year, and the land, if carefully handled, needs but little fertilization. It is yielding two or three crops every twelve months and is seldom idle. Under the old system of basin irrigation the fields lay fallow during the hot months of the summer, but the canals and dams that have now been constructed enable much of the country to have water all the year round, so that as soon as one crop is harvested another is planted.

The primitive *norag* is still seen in Egypt threshing the grain and cutting up the straw for fodder. It moves on small iron wheels or thin circular plates and is drawn in a circle over the wheat or barley.

The Egyptian agricultural year has three seasons. Cereal crops are sown in November and harvested in May; the summer crops are cotton, sugar, and rice; the fall crops, sown in July, are corn, millet, and vegetables.



The mud of the annual inundations is no longer sufficient fertilizer for the Nile farm. The *fellaheen* often use pigeon manure on their lands and there are hundreds of pigeon towers above the peasants' mud huts.

FELLAHEEN ON THEIR FARMS

The whole of the delta is one big farm dotted with farm villages and little farm cities. There are mud towns everywhere, and there are half-a-dozen big agricultural centres outside the cities of Alexandria and Cairo. Take, for instance, Tanta, where I am at this writing. It is a good-sized city and is supported by the farmers. It is a cotton market and it has a great fair, now and then, to which the people come from all over Egypt to buy and sell. A little to the east of it is Zagazig, which is nearly as large, while farther north, upon the east branch of the Nile, is Mansura, another cotton market, with a rich farming district about it. Damietta and Rosetta, at the two mouths of the Nile, and Damanhur, which lies west of the Rosetta branch of the Nile, not far from Lake Edku, are also big places. There are a number of towns ranging in population from five to ten thousand.

The farms are nothing like those of the United States. We should have to change the look of our landscape to imitate them. There are no fences, no barns, and no haystacks. The country is as bare of such things as an undeveloped prairie. The only boundaries of the estates are little mud walls; and the fields are divided into patches some of which are no bigger than a tablecloth. Each patch has furrows so made that the water from the canals can irrigate every inch.

The whole country is cut up by canals. There are large waterways running along the branches of the Nile, and smaller ones connecting with them, to such an extent that the face of the land is covered with a lacework veil of little streams from which the water can be let in and out. The draining of the farms is quite as important as watering, and the system of irrigation is perfect,

inasmuch as it brings the Nile to every part of the country without letting it flood and swamp the lands.

Few people have any idea of the work the Egyptians have to do in irrigating and taking care of their farms. The task of keeping these basins in order is herculean. As the Nile rushes in, the embankments are watched as the Dutch watch the dikes of Holland. They are patrolled by the village headmen and the least break is filled with stalks of millet and earth. The town officials have the right to call out the people to help, and no one refuses. If the Nile gets too high it sometimes overflows into the settlements and the mud huts crumble. During the flood the people go out in boats from village to village. The donkeys, buffaloes, and bullocks live on the dikes, as do also the goats, sheep, and camels.

The people sow their crops as soon as the floods subside. Harvest comes on within a few months, and unless they have some means of irrigation, in addition to the Nile floods, they must wait until the following year before they can plant again. With a dam like the one at Aswan, the water supply can be so regulated that they can grow crops all the year round. This is already the condition in a great part of the delta, and it is planned to make the same true of the farms of Upper Egypt.

As for methods of raising the water from the river and canals and from one level to another, they vary from the most modern of steam pumps and windmills to the clumsy *sakieh* and *shadoof*, which are as old as Egypt itself. All the large land owners are now using steam pumps. There are many estates, owned by syndicates, which are irrigated by this means, and there are men who are buying portable engines and pumps and hiring them out to the smaller

farmers in much the same way that threshing machines are rented in the United States and Canada. Quite a number of American windmills are already installed. Indeed, it seems to me almost the whole pumping of the Nile valley might be done by the wind. The breezes from the desert as strong as those from the sea sweep across the valley with such regularity that wind pumps could be relied upon to do efficient work.

At present, however, water is raised in Egypt mostly by its cheap man power or by animals. Millions of gallons are lifted by the *shadoof*. This is a long pole balanced on a support. From one end of the pole hangs a bucket, and from the other a heavy weight of clay or stone, about equal to the weight of the bucket when it is full of water. A man pulls the bucket down into the water, and by the help of the weight on the other end, raises it and empties it into a canal higher up. He does this all day long for a few cents, and it is estimated that he can in ten days lift enough water to irrigate an acre of corn or cotton. At this rate there is no doubt it could be done much cheaper by pumps.

Another rude irrigation machine found throughout the Nile valley from Alexandria to Khartum is the *sakieh*, which is operated by a blindfolded bullock, buffalo, donkey, or camel. It consists of a vertical wheel with a string of buckets attached to its rim. As the wheel turns round in the water the buckets dip and fill, and as it comes up they discharge their contents into a canal. This vertical wheel is moved by another wheel set horizontally, the two running in cogs, and the latter being turned by some beast of burden. There is usually a boy, a girl, or an old man, who sits on the shaft and drives the animal round.

The screech of these *sakiehs* is loud in the land and almost breaks the ear drums of the tourists who come near them. I remember a remark that one of the Justices of our Supreme Court made while we were stopping together at a hotel at Aswan with one of these water-wheels in plain sight and hearing. He declared he should like to give an appropriation to Egypt large enough to enable the people to oil every *sakieh* up and down the Nile valley. I doubt, however, whether the *fellaheen* would use the oil, if they had it, for they say that the blindfolded cattle will not turn the wheel when the noise stops.

I also saw half-naked men scooping up the water in baskets and pouring it into the little ditches, into which the fields are cut up. Sometimes men will spend not only days, but months on end in this most primitive method of irrigation.

The American farmer would sneer at the old-fashioned way in which these Egyptians cultivate the soil. He would tell them that they were two thousand years behind the time, and, still, if he were allowed to take their places he would probably ruin the country and himself. Most of the Egyptian farming methods are the result of long experience. In ploughing, the land is only scratched. This is because the Nile mud is full of salts, and the silt from Abyssinia is of such a nature that the people have to be careful not to plough so deep that the salts are raised from below and the crop thereby ruined. In many cases there is no ploughing at all. The seed is sown on the soft mud after the water is taken off, and pressed into it with a wooden roller or trodden in by oxen or buffaloes.

Where ploughs are used they are just the same as those of five thousand years ago. I have seen carvings on the

EUROPE
ATLANTIC OCEAN
BLACK SEA
CASPIAN SEA
ASIA
MEDITERRANEAN SEA
Algiers
Bizerta
Tunis
Tangier
Oran
Rabat
Fez
Tuggurt
MOUNTAINS
ATLAS
MADEIRA (Port.)
Casa Blanca
MOROCCO
ALGERIA
TUNIS
Tripoli
Benghazi
Alexandria
Pt. Said
Cairo
Suez
Colomb Bechar
CANARY IS (Sp.)
Ifni (Sp.)
RIO DE ORO
LIBYA
EGYPT
Persian Gulf
TROPIC OF CANCER
Libyan
Aswa
RED SEA
ARABIA
SAHARA
Desert
Wady Halfa
Pt. Sudan
Suakim
FRENCH WEST AFRICA
Timbuktu
Berbera
St. Louis
SENEGAL
Niger
MILITARY TERRITORY OF CHAD
ANGLO-EGYPTIAN SUDAN
Omdurman
Khartum
Asmara
Massawa
ERITREA
Bathurst
GAMBIA
Bammako
Zinder
L. Chad
Kano
El Obeid
Blue Nile
Gulf of Aden
Konakry
Kankan
SIERRA LEONE
Freetown
Pendemba
LIBERIA
Monrovia
NORTH TERR.
Buake
ASHANTI
IVORY COAST
GOLD COAST
Abidjean
Accra
DAHOMEY
Rabba
Lagos
Udi
NIGERIA
Porto Novo
Calabar
Bare
CAMEROONS
Duala
Pt. Harcourt
Widimenge
Jibuti
Addis Ababa
ABYSSINIA
BRITISH SOMALILAND
Ubangi R.
L. Rudolph
UGANDA PROT.
KENYA COLONY
Mt. Elgon
Mt. Kenya
Nairobi
ITALIAN SOMALILAND
Mogadisha
EQUATOR
Benito R.
Libreville
FRENCH EQUATORIAL AFRICA
Congo
L. Albert
Entebbe
Stanleyville
Ponthierville
Stanley Falls
L. Victoria
Kisumu
30°
20°
10°
0°
10°
20°
30°
40°
50°
60°
50°
40°
30°
20°
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tombs of the ancient Egyptians representing the farm tools used then, and they are about the same as those I see in use to-day. The average plough consists of a pole about six feet long fastened to a piece of wood bent inward at an acute angle. The end piece, which is shod with iron, does the ploughing. The pole is hitched to a buffalo or ox by means of a yoke, and the farmer walks along behind the plough holding its single handle, which is merely a stick set almost upright into the pole. The harrow of Egypt is a roller provided with iron spikes. Much of the land is dug over with a mattock-like hoe.

Most of the grain here is cut with sickles or pulled out by the roots. Wheat and barley are threshed by laying them inside a ring of well-pounded ground and driving over them a sledge that rests on a roller with sharp semicircular pieces of iron set into it. It is drawn by oxen, buffaloes, or camels. Sometimes the grain is trodden out by the feet of the animals without the use of the rollers, and sometimes there are wheels of stone between the sled-runners which aid in hulling the grain. Peas and beans are also threshed in this way. The grain is winnowed by the wind. The ears are spread out on the threshing floor and the grains pounded off with clubs or shelled by hand. Much of the corn is cut and laid on the banks of the canal until the people have time to husk and shell it.

The chief means of carrying farm produce from one place to another is on bullocks and camels. The camel is taken out into the corn field while the harvesting is going on. As the men cut the corn they tie it up into great bundles and hang one bundle on each side of his hump. The average camel can carry about one fifth as much as one horse hitched to a wagon or one tenth as much as a

two-horse team. Hay, straw, and green clover are often taken from the fields to the markets on camels. Such crops are put up in a baglike network that fits over the beast's hump and makes him look like a hay or straw-stack walking off upon legs. Some of the poorer farmers use donkeys for such purposes, and these little animals may often be seen going along the narrow roads with bags of grain balanced upon their backs.

I have always looked upon Egypt as devoted mostly to sugar and cotton. I find it a land of wheat and barley as well. It has also a big yield of clover and corn. The delta raises almost all of the cotton and some of the sugar. Central and Upper Egypt are grain countries, and in the central part Indian and Kaffir corn are the chief summer crops. Kaffir corn is, to a large extent, the food of the poorer *fellaheen*, and is also eaten by the Bedouins who live in the desert along the edges of the Nile valley. Besides a great deal of hay, Egypt produces some of the very best clover, which is known as bersine. It has such rich feeding qualities that a small bundle of it is enough to satisfy a camel.

This is also a great stock country. The Nile valley is peppered with camels, donkeys, buffaloes, and sheep, either watched by herders or tied to stakes, grazing on clover and other grasses. No animal is allowed to run at large, for there are no fences and the cattle thief is everywhere in evidence. The *fellaheen* are as shrewd as any people the world over, so a strayed animal would be difficult to recover. Much of the stock is watched by children. I have seen buffaloes feeding in the green fields with naked brown boys sitting on their backs and whipping them this way and that if they attempt to get into the

crops adjoining. The sheep and the goats are often watched by the children or by men who are too old to do hard work. The donkeys, camels, and cows are usually tied to stakes and can feed only as far as their ropes will reach.

The sheep of Egypt are fine. Many of them are of the fat-tailed variety, some brown and some white. The goats and sheep feed together, there being some goats in almost every flock of sheep.

The donkey is the chief riding animal. It is used by men, women, and children, and a common sight is the veiled wife of one of these Mohammedan farmers seated astride one of the little fellows with her feet high up on its sides in the short stirrups. But few camels are used for riding except by the Bedouins out in the desert, and it is only in the cities that many wheeled vehicles are to be seen.

Suppose we go into one of the villages and see how these Egyptian farmers live. The towns are collections of mud huts with holes in the walls for windows. They are scattered along narrow roadways at the mercy of thick clouds of dust. The average hut is so low that one can look over its roof when seated on a camel. It seldom contains more than one or two rooms, and usually has a little yard outside where the children and the chickens roll about in the dust and where the donkey is sometimes tied.

Above some of the houses are towers of mud with holes around their sides. These towers are devoted to pigeons, which are kept by the hundreds and which are sold in the markets as we sell chickens. The pigeons furnish a large part of the manure of Egypt both for gardens and fields. The manure is mixed with earth and scattered over the soil.

Almost every village has its mosque, or church, and often, in addition, the tomb of some saint or holy man who lived

there in the past. The people worship at such tombs, believing that prayers made there avail more than those made out in the fields or in their own huts.

There are no water works in the ordinary country village. If the locality is close to the Nile the drinking and washing water is brought from there to the huts by the women, and if not it comes from the village well. It is not difficult to get water by digging down a few feet anywhere in the Nile valley; and every town has its well, which is usually shaded by palm trees. It is there that the men gather about and gossip at night, and there the women come to draw water and carry it home upon their heads.

The farmers' houses have no gardens about them, and no flowers or other ornamental decoration. The surroundings of the towns are squalid and mean, for the peasants have no comforts in our sense of the word. They have but little furniture inside their houses. Many of them sleep on the ground or on mats, and many wear the same clothing at night that they wear in the daytime. Out in the country shoes, stockings, and underclothes are comparatively unknown. Only upon dress-up occasions does a man or woman put on slippers.

The cooking and housekeeping are done entirely by the women. The chief food is a coarse bread made of corn or millet baked in thick cakes. This is broken up and dipped into a kind of a bean stew seasoned with salt, pepper, and onions. The ordinary peasant seldom has meat, for it is only the rich who can afford mutton or beef. At a big feast on the occasion of a wedding, a farming nabob sometimes brings in a sheep which has been cooked whole. It is eaten without forks, and is torn limb from limb, pieces being cut out by the guests with their knives.

Next to the market where sugar cane is sold is the "Superb Mosque," built by Sultan Hassan nearly 600 years ago. Besides being a centre for religious activities, it is also a gathering place for popular demonstrations and political agitation.

Cairo is the largest city on the African continent, and one of the capitals of the Mohammedan world. Its flat-roofed buildings are a yellowish-white, with the towers and domes of hundreds of mosques rising above them.

Of late Egypt has begun to raise vegetables for Europe. The fast boats from Alexandria to Italy carry green stuff, especially onions, of which the Nile valley is now exporting several million dollars' worth per annum. Some of these are sent to England, and others to Austria and Germany.

As for tobacco, Egypt is both an exporter and importer. "Egyptian" cigarettes are sold all over the world, but Egypt does not raise the tobacco of which they are made. Its cultivation has been forbidden for many years, and all that is used is imported from Turkey, Greece, and Bosnia. About four fifths of it comes from Turkey.

Everyone in Egypt who can afford it smokes. The men have pipes of various kinds, and of late many cigarettes have been coming into use. A favourite smoke is with a water pipe, the vapour from the burning tobacco being drawn by means of a long tube through a bowl of water upon which the pipe sits, so that it comes cool into the mouth.

The chicken industry of Egypt is worth investigation by our Department of Agriculture. Since the youth of the Pyramids, these people have been famous egg merchants and the helpful hen is still an important part of their stock. She brings in hundreds of thousands of dollars a year, for her eggs form one of the items of national export. During the last twelve months enough Egyptian eggs have been shipped across the Mediterranean to England and other parts of Europe to have given one to every man, woman, and child in the United States. Most of them went to Great Britain.

The Egyptians, moreover, had incubators long before artificial egg hatching was known to the rest of the world.

There is a hatchery near the Pyramids where the farmers trade fresh eggs for young chicks at two eggs per chick, and there is another, farther down the Nile valley, which produces a half million little chickens every season. It is estimated that the oven crop of chickens amounts to thirty or forty millions a year, that number of little fowls being sold by the incubator owners when the baby chicks are about able to walk.

Most of our incubators are of metal and many are kept warm by oil lamps. Those used here are one-story buildings made of sun-dried bricks. They contain ovens which are fired during the hatching seasons. The eggs are laid upon cut straw in racks near the oven, and the firing is so carefully done that the temperature is kept just right from week to week. The heat is not gauged by the thermometer, but by the judgment and experience of the man who runs the establishment. A fire is started eight or ten days before the eggs are put in, and from that time on it is not allowed to go out until the hatching season is over. The eggs are turned four times a day while hatching. Such establishments are cheaply built, and so arranged that it costs almost nothing to run them. One that will hatch two hundred thousand chickens a year can be built for less than fifty dollars, while for about a dollar and a half per day an experienced man can be hired to tend the fires, turn the eggs, and sell the chickens.

CHAPTER VI

THE PROPHET'S BIRTHDAY

STAND with me on the Hill of the Citadel and take a look over Cairo. We are away up over the river Nile, and far above the minarets of the mosques that rise out of the vast plain of houses below. We are at a height as great as the tops of the Pyramids, which stand out upon the yellow desert off to the left. The sun is blazing and there is a smoky haze over the Nile valley, but it is not dense enough to hide Cairo. The city lying beneath us is the largest on the African continent and one of the mightiest of the world. It now contains about eight hundred thousand inhabitants; and in size is rapidly approximating Heliopolis and Memphis in the height of their ancient glory.

Of all the Mohammedan cities of the globe, Cairo is growing the fastest. It is more than three times as big as Damascus and twenty times the size of Medina, where the Prophet Mohammed died. The town covers an area equal to fifty quarter-section farms; and its buildings are so close together that they form an almost continuous structure. The only trees to be seen are those in the French quarter, which lies on the outskirts.

The larger part of the city is of Arabian architecture. It is made up of flat-roofed, yellowish-white buildings so crowded along narrow streets that they can hardly be seen at this distance. Here and there, out of the field

of white, rise tall, round stone towers with galleries about them. They dominate the whole city, and under each is a mosque, or Mohammedan church. There are hundreds of them in Cairo. Every one has its worshippers, and from every tower, five times a day, a shrill-voiced priest calls the people to prayers. There is a man now calling from the Mosque of Sultan Hasan, just under us. The mosque itself covers more than two acres, and the minaret is about half as high as the Washington Monument. So delighted was Hasan with the loveliness of this structure that when it was finished he cut off the right hand of the architect so that it would be impossible for him to design another and perhaps more beautiful building. Next it is another mosque, and all about us we can see evidences that Mohammedanism is by no means dead, and that these people worship God with their pockets as well as with their tongues.

In the Alabaster Mosque, which stands at my back, fifty men are now praying, while in the courtyard a score of others are washing themselves before they go in to make their vows of repentance to God and the Prophet. Not far below me I can see the Mosque El-Azhar, which has been a Moslem university for more than a thousand years, and where something like ten thousand students are now learning the Koran and Koranic law.

Here at Cairo I have seen the people preparing to take their pilgrimage to Mecca, rich and poor starting out on that long journey into the Arabian desert. Many go part of the way by water. The ships leaving Alexandria and Suez are crowded with pilgrims and there is a regular exodus from Port Sudan and other places on this side of the Red Sea. They go across to Jidda and there lay

off their costly clothing before they make their way inland, each clad only in an apron with a piece of cloth over the left shoulder. Rich and poor dress alike. Many of the former carry gifts and other offerings for the sacred city. Such presents cost the Egyptian government alone a quarter of a million dollars a year; for not only the Khedive but the Mohammedan rulers of the Sudan send donations. The railroad running from far up the Nile to the Red Sea makes special rates to pilgrimage parties.

Yet I wonder whether this Mohammedanism is not a religion of the lips rather than of the heart. These people are so accustomed to uttering prayers that they forget the sense. The word God is heard everywhere in the bazaars. The water carrier, who goes about with a pigskin upon his back, jingling his brass cups to announce his business, cries out: "May God recompense me!" and his customer replies, as he drinks, by giving him a copper in the name of the Lord. The lemonade peddler, who carries a glass bottle as big as a four-gallon crock, does the same, and I venture to say that the name of the Deity is uttered here more frequently than in any other part of the world. It is through this custom of empty religious formulas that I am able to free myself of the beggars of the city. I have learned two Arab words: "Allah yatik," which mean: "May God give thee enough and to spare." When a beggar pesters me I say these words gently. He looks upon me in astonishment, then touches his forehead in a polite Mohammedan salute and goes away.

On my second visit to Egypt I was fortunate in being in Cairo on the birthday of the Prophet. It was a feast day among the Mohammedans, and at night there was a grand religious celebration at the Alabaster Mosque which

Mehemet Ali, that Napoleon of Egypt, built on the Citadel above Cairo. Its minarets, overlooking the Nile valley, the great deserts and the vast city of Cairo, blazed with light, and from them the cry of the muezzins sounded shrill on the dusky air: "Allah is great! There is no God but Allah, and Mohammed is the Prophet of Allah! Come to worship! Allah is great! There is no God but Allah!"

As this call reverberated through the city, Mohammedans of all classes started for the Citadel. Some came in magnificent turnouts, bare-legged, gaudily dressed *syces* with wands in their hands running in front of them to clear the way. Some came upon donkeys. Some moved along in groups of three or four on foot. The Khedive came with the rest, soldiers with drawn swords going in front of his carriage and a retinue of cavalry following behind.

The Alabaster Mosque covers many acres. It has a paved marble court, as big as a good-sized field, around which are cloisters. This is roofed with the sky, and in the midst of it is a great marble fountain where the worshippers bathe their feet and hands before they go in to pray. The mosque is at the back of this court, facing Mecca. Its many domes rise to a great height and its minarets seem to pierce the sky. It is built of alabaster, but its exterior has become worn and pitted by the sands of the desert, which have been blown against its walls until it has nothing of the grandeur which it must have shown when its founder worshipped within it.

The interior, however, was wonderfully beautiful that night, when its gorgeous decorations were shown off by the thousands of lights of this great service. Under the gas-

light and lamplight the tinsel which during the day shocks the taste was softened and beautified. The alabaster of the walls became as pure as Mexican onyx, and the rare Persian rugs that lay upon the floor took on a more velvety tint.

See it all again with me. In the eye of your mind cover an acre field with the richest of oriental rugs; erect about it walls of pure white alabaster with veins as delicate as those of the moss agate; let these walls run up for hundreds of feet; build galleries around them and roof the whole with great domes in which are windows of stained glass; hang lamps by the thousands from the ceiling, place here and there an alabaster column. Now you have some idea of this mosque as it looked on the night of Mohammed's birthday.

You must, however, add the worshippers to the picture. Thousands of oriental costumes; turbans of white, black, and green; rich gowns and sober, long-bearded, dark faces, shine out under the lights in every part of the building. Add likewise the mass of Egyptian soldiers in gold lace and modern uniforms, with red fezzes on their heads, and the hundreds of noble Egyptians in European clothes. There are no shoes in the assemblage, and the crowd moves about on the rugs in bare feet or stockings.

What a babel of sounds goes up from the different parts of the building, and how strange are the sights! Here a dozen old men squat on their haunches, facing each other, and rock back and forth as they recite passages of the Koran. Here is a man worshipping all alone; there is a crowd of long-haired, wild-eyed ascetics with faces of all shades of black, yellow, and white. They are so dirty and emaciated they make one think of the hermits of

fiction. They stand in a ring and go through the queerest of antics to the weird music of three great tambourines and two drums played by worshippers quite as wild looking as themselves. It is a religious gymnastic show, the horrible nature of which cannot be described upon paper.

When I first entered the mosque, these Howling Dervishes were squatted on the floor, moving their bodies up and down in unison, and grunting and gasping as though the whole band had been attacked with the colic. A moment later they arose and began to bob their heads from one side to the other until I thought their necks would be dislocated by the jerks they gave them. They swung their ears nearly down to their shoulders. The leader stood in the centre, setting the time to the music. Now he bent over so that his head was almost level with his knees, then snapped his body back to an erect position. The whole band did likewise, keeping up this back-breaking motion for fifteen minutes. All the time they howled out "Allah, Allah!" Their motions increased in wildness. With every stoop the music grew louder and faster. They threw off their turbans, and their long hair, half matted, now brushed the floor as they bent down in front, now cut the air like whips as they threw themselves back. Their eyes began to protrude, one man frothed at the mouth. At last they reached such a state of fanatical ecstasy that not for several minutes after the leader ordered them to stop, were they able to do so. The Howling Dervishes used to cut themselves in their rites and often they fall down in fits in their frenzy. They believe that such actions are passports to heaven.

In another part of the room was a band of Whirling Dervishes, who, dressed in high sugar-loaf hats and long

A great occasion in Cairo is the sending of a new gold-embroidered carpet to the sanctuary in Mecca, there to absorb holiness at the shrine of the Prophet. The old carpet is brought back each year, and its shreds are distributed among the Faithful.

The mosque of the Citadel in Cairo was built of alabaster by Mehemet Ali, the "Napoleon of Egypt." When Mohammed's birthday is celebrated, its halls and courts are choked with thousands of Moslem worshippers and are the scene of fanatical religious exercises.

white gowns, whirled about in a ring, with their arms outstretched, going faster and faster, until their skirts stood out from their waists like those of a circus performer mounted on a bareback steed, as she dances over the banners and through the hoops.

There were Mohammedans of all sects in the mosque, each going through his own pious performances without paying any attention to the crowds that surrounded him. In his religious life the Mussulman is a much braver man than the Christian. At the hours for prayer he will flop down on his knees and touch his head on the ground in the direction of Mecca, no matter who are his companions or what his surroundings. He must take off his shoes before praying, and I saw yesterday in the bazaars of Cairo a man clad in European clothes who was praying in his little box-like shop with his stocking feet turned out toward the street, which was just then full of people. In the heel of each stocking there was a hole as big as a dollar, and the bare skin looked out at the crowds.

The Moslems of Egypt, like those elsewhere, have their fast days, during which, from sunrise to sunset, they do not allow a bit of food nor a drop of water to touch their lips. Some of them carry the fast to such an extent that they will not even swallow their saliva, and in this dry climate their thirst must be terrible. The moment the cannon booms out the hour of sunset, however, they dash for water and food, and often gorge themselves half the night. You may see a man with a cigarette in his hand waiting until the sun goes down in order that he may light it, or another holding a cup of water ready while he listens for the sound of the cannon. This fasting is very severe upon the poor people of Egypt, who have to work all day

without eating. The rich often stay up for the whole night preceding a fast day, and by going to bed toward morning they are able to sleep the day through and get up in time for a big meal after sunset.

The poor are the best Mohammedans, and many of the more faithful are much alarmed at the laxity in religious duty that comes through contact with Europeans. A missionary friend told me of a Moslem sheik who was offered a glass of cognac by a brother believer on a fast day. Shortly after this he met my friend and spoke of the incident, saying: "I don't know what we are coming to. Good Mohammedans think they can drink without sinning, and this man laughed when I told him it was fast day and said that fasts were for common people, and that religion was not of much account, anyhow. We have many infidels among us, and it seems to me that the world is in a very bad way."

The Moslems have many doctrines worthy of admiration and the morals of the towns of Egypt which have not been affected by European civilization are, I am told, far better than those of Cairo or Alexandria. A traveller to a town on the Red Sea, which is purely Mohammedan, says that the place has had no litigation for years, and there is no drunkenness or disorder. The people move on in a quiet, simple way, with their sheik settling all their troubles. Mohammedan Cairo is quite as orderly as the part in which the nobility and the Europeans live. It contains the bazaars and the old buildings of the Arabian part of the city, and is by all odds the most interesting section.

CHAPTER VII

IN THE BAZAARS OF CAIRO

CAIRO is the biggest city in Africa. It is larger than St. Louis and one of the most cosmopolitan cities in the Orient. The Christians and the Mohammedans here come together, and the civilizations of the East and the West touch each other. The modern part of Cairo has put on the airs of European capitals. It has as wide streets as Paris, and a park, full of beautiful flowers and all varieties of shrubs and trees, lies in its very centre. Here every night the military bands play European and American airs, and veiled Mohammedan women walk about with white-faced French or Italian babies, of which they are the nurses. People from every part of the world listen to the music. The American jostles the Englishman while the German and the Frenchman scowl at each other; the Greek and the Italian move along side by side, as they did in the days when this country was ruled by Rome, and now and then you see an old Turk in his turban and gown, or a Bedouin Arab, or a white-robed, fair-faced heathen from Tunis.

The European section of Cairo now has magnificent hotels. It is many a year since the foreign traveller in Egypt has had to eat with his fingers, or has seen a whole sheep served up to him by his Egyptian host as used to be the case. To-day the food is the same as that you get in Paris, and is served in the same way. One can buy any-

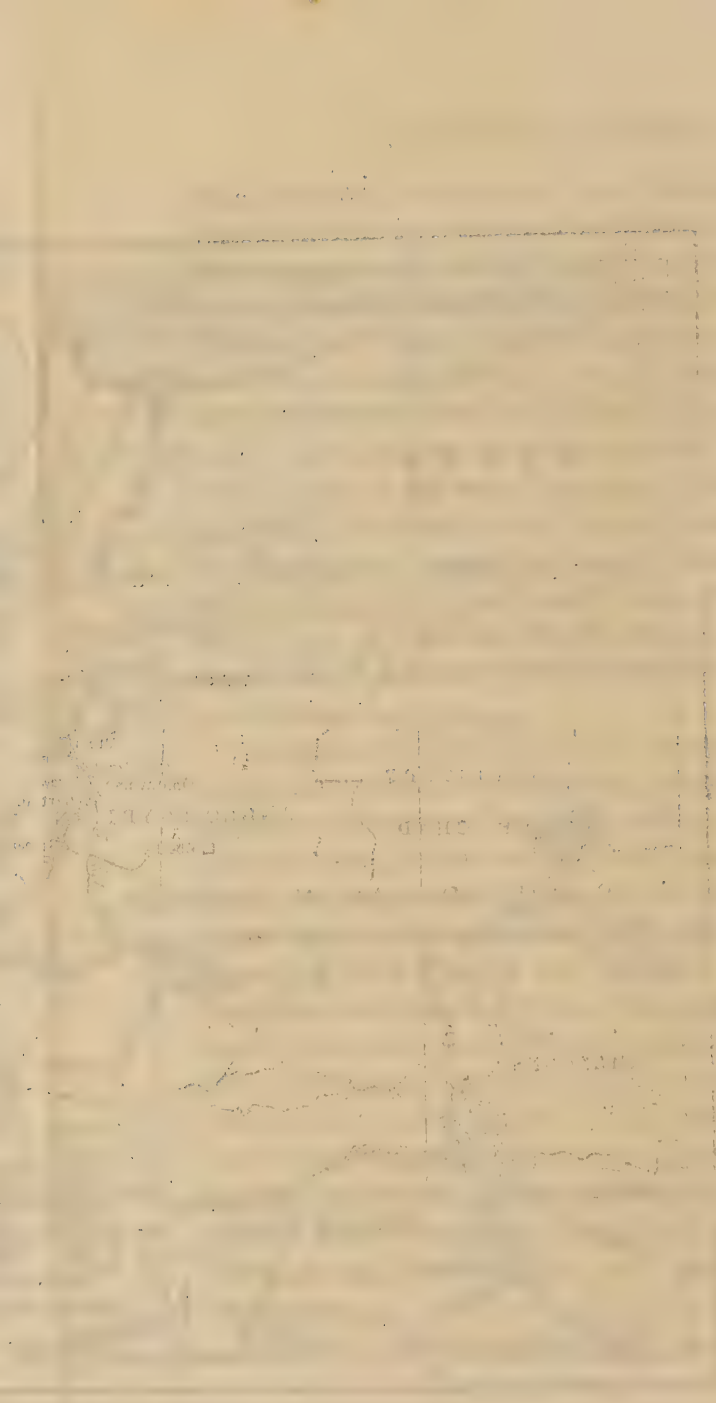
thing he wants in European Cairo, from a gas-range to a glove-buttoner, and from a set of diamond earrings to a pair of shoestrings. Yesterday I had a suit of clothes made by an English tailor, and I drive about every day in an American motor car. There are, perhaps, fifty thousand Europeans living in the city, and many American visitors have learned the way to this great winter resort. The bulk of the Europeans are French and Italian, and the Mouski, one of the main business streets, is lined for a mile with French and Italian shops. There are thousands of Greeks, and hundreds of Jews from Palestine, the states of southern Europe, and Asia Minor. One sees every type of Caucasian moving about under dark red fezzes and dressed in black clothes with coats buttoned to the chin.

The foreign part of Cairo is one of great wealth. There are mansions and palaces here that would be called handsome in the suburbs of New York, and property has greatly risen in value. Many of the finest houses are owned by Greeks, whose shrewd brains are working now as in the classic days. The Greeks look not unlike us and most of them talk both English and French. They constitute the money aristocracy of Alexandria, and many of the rich Greek merchants of that city have palatial winter homes here. As I have said, they are famed as bankers and are the note-shavers of Egypt. They lend money at high rates of interest, and I am told that perhaps one fifth of the lands of the country belong to them. They have bought them in under mortgages to save their notes. The lower classes of the Greeks are the most turbulent of Egypt's population.

The tourist who passes through Cairo and stays at one of

FROM CAIRO TO

Embraces the right shoulder of Africa whi
tempts of rulers and traders to establish t



the big hotels is apt to think that the city is rapidly becoming a Christian one. As he drives over asphalt streets lined with the fine buildings of the European quarter, it seems altogether English and French. If he is acquainted with many foreigners he finds them living in beautiful villas, or in apartment houses like those of our own cities. He does his shopping in modern stores and comes to the conclusion that the Arab element is passing away.

This is not so. Cairo is a city of the Egyptians. Not one tenth of its inhabitants are Christians and it is the hundreds of thousands of natives who make up the life blood of this metropolis. They are people of a different world from ours, as we can see if we go down for a stroll through their quarters. They do business in different ways and trade much as they have been trading for generations. Their stores are crowded along narrow streets that wind this way and that until one may lose himself in them. Nearly every store is a factory, and most of the goods offered are made in the shop where they are sold.

Although the foreigner and his innovations are in evidence, native Cairo is much the same now in characters, customs, and dress as it was in the days of Haroun Al Raschid. Here the visionary Alnaschar squats in his narrow, cell-like store, with his basket of glass before him. He holds the tube of a long water pipe in his mouth and is musing on the profits he will make from peddling his glass, growing richer and richer, until his sovereign will be glad to offer him his daughter in marriage and he will spurn her as she kneels before him. We almost expect to see the glass turned over as it is in the story, and his castles in the air shattered with his kick. Next to him is a turbaned Mohammedan who reminds us of Sinbad the

Sailor, and a little farther on is a Barmecide washing his hands with invisible soap in invisible water, and apparently inviting his friends to come and have a great feast with him. Here two long-gowned, gray-bearded men are sitting on a bench drinking coffee together; and there a straight, tall maiden, robed in a gown which falls from her head to her feet, with a long black veil covering all of her face but her eyes, looks over the wares of a handsome young Syrian, reminding us of how the houris shopped in the days of the "Thousand and One Nights."

Oriental Cairo is a city of donkeys and camels. In the French quarter you may have a ride on an electric street car for a few cents, or you may hire an automobile to carry you over the asphalt. The streets of the native city are too narrow for such things, and again and again we are crowded to the wall for fear that the spongy feet of the great camels may tread upon us. We are grazed by loaded donkeys, carrying grain, bricks, or bags on their backs, and the donkey boy trotting behind an animal ridden by some rich Egyptian or his wife calls upon us to get out of the way.

The donkeys of Egypt are small, rugged animals. One sees them everywhere with all sorts of odd figures mounted on them. Here is an Egyptian woman sitting astride of one, her legs bent up like a spring and her black feet sticking out in the stirrups. She is dressed in black, in a gown which makes her look like a balloon. There is a long veil over her face with a slit at the eyes, where a brass spool separates it from the head-dress and you see nothing but strips of bare skin an inch wide above and below. Here is a sheik with a great turban and a long gown; his legs, ending in big yellow slippers, reach almost to the ground on

each side of his donkey. He has no bridle, but guides the beast with a stick. A donkey-boy in bare feet, whose sole clothing consists of a blue cotton nightgown and a brown skullcap, runs behind poking up the donkey with a stick. Now he gives it a cut, and the donkey jerks its hinder part from one side to the other as it scallops the road in attempting to get out of the way of the rod. Here is a drove of donkeys laden with bags for the market. They are not harnessed, and the bags are balanced upon their backs without ropes or saddles.

The ordinary donkey of Egypt is very cheap indeed, but the country has some of the finest asses and mules I have ever seen, and there are royal white jackasses ridden by wealthy Mohammedans which are worth from five hundred to a thousand dollars per beast. The best of these come from Mecca. They are pacers, fourteen hands high, and very swift. The pedigrees of some of them are nearly as long as those of Arabian horses. It is said that the Arabs who raise them will never sell a female of this breed.

But to return to the characters of the bazaar. They are of the oddest, and one must have an educated eye to know who they are. Take that man in a green turban, who is looked up to by his fellows. The dragoman tells us that he has a sure passport to Heaven, and that the green turban is a sign that he has made the pilgrimage to Mecca and thus earned the right to the colours of the Prophet. Behind him comes a fine-featured, yellow-faced man in a blue gown wearing a turban of blue. We ask our guide who he may be and are told, with a sneer, that he is a Copt. He is one of the Christians of modern Egypt, descended from the fanatical band described by Charles Kingsley in his novel "Hypatia." Like all his class he is

intelligent, and like most of them well dressed. The Copts are among the shrewdest of the business Egyptians, and with prosperity they have grown in wealth. They are money lenders and land speculators. Many of them have offices under the government, and not a few have amassed fortunes. Some of them are very religious and some can recite the Bible by heart. They differ from their neighbours in that they believe in having only one wife.

The crowd in these streets is by no means all men, however. There are women scattered through it, and such women! We look at them, and as their large soulful eyes, fringed with dark lashes, smile back at us, we wish that the veils would drop from their faces. The complexions which can be seen in the slit in the veils are of all colours from black to brunette, and from brown to the creamy white of the fairest Circassian. We are not particularly pleased with their costume, but our dragoman tells us that they dress better at home. The better classes wear black bombazine garments made so full that they hide every outline of the figure. Some of them have their cloaks tied in at the waist so that they look like black bed ticks on legs. Here, as one raises her skirt, we see that she wears bloomers falling to her ankles, which make us think of the fourteen-yard breeches worn by the girls of Algiers. The poorer women wear gowns of blue cotton, a single garment and the veil making up a whole costume. Astride their shoulders or their hips some of them carry babies, many of whom are as naked as when they were born.

Here is a lady with a eunuch, who, as black as your hat and as sombre as the Sphinx, guards the high-born dame lest she should flirt with that handsome young man from Tunis sitting cross-legged in the midst of his bottles of

The streets of old Cairo resound with the cries of vendors of sweetmeats and drinks. Lemonade is dispensed from a great brass bottle on the back of the seller, while around his waist is a tin tray of glasses or cups.

Over many warehouses, shops, and even stables of old Cairo are homes of the well-to-do with marble floors covered with fine rugs. The supporting arch is much used because long timbers are not available.

attar of roses. He offers a bottle to the lady while he talks of its merits in the most flowery terms. Here is a barefooted girl, who, strange to say, has no veil over her face, but whose comely features might be considered by a jealous lover to warrant such protection. Her chin is tattooed and the nails of her fingers and toes are stained deep orange with henna. She has a great tray on her head and is calling out her wares in the strangest language: "Buy my oranges! They are sweet as honey, and I know that God will make my basket light."

This is in Arabic, and one hears the same extravagant sort of talk all about him. Here two Turks meet and salute each other. They almost fight in their struggle each to humble himself first by kissing the hand of the other. After they have done so a third passes and they all say: "*Nabarak sayed*"—"May thy day be happy and blessed." There are no more polite people on earth than these Mohammedans, whose everyday talk is poetry.

I can always amuse myself for days in watching the trading in the bazaars. I saw an Egyptian woman buying some meat to-day. The butcher's whole stock consisted of a couple of sheep, one of which hung from a nail on the wall. The woman drew her finger nail along the piece she wished to take home, and the butcher sawed it off with a clasp knife. He weighed it on a pair of rude scales, and the woman objected, saying that he had given her too much. He then took one end of the strip of meat in his hand, and putting the other end in his mouth, severed it by drawing the knife quickly across it. He handed the piece he had held in his mouth to the woman, who took it and paid for it, evidently seeing nothing out of the way in his methods.

In the bazaars the merchants sit in little booths no bigger than the packing-box of a piano. A ledge about two feet high, and of about the same width, runs along the front of the store, on which the customers sit. A purchaser is usually offered coffee, and asked to take a smoke out of the long-stemmed water pipe of the proprietor. It takes a great time to make a deal, for the Mohammedan always asks three times what he expects to get, and never comes down without bargaining. The better merchants all keep book accounts, which they foot up in Arabic characters, taking the ink out of a brass inkstand with a handle a foot long which is so made that it will contain the pen as well as the ink. This inkwell is thrust into the belt of the gown when the proprietor leaves his shop.

If one is not satisfied at one place he can go to another. In the Cinnamon Bazaar there are dozens of stores that sell nothing but spices, and in the Shoemakers' Bazaar are the gorgeously embroidered slippers and red-leather shoes, turned up at the toes, worn by all good Mohammedans. In the Silver Bazaar the jewellers are at work. They use no tools of modern invention. Their bellows is a bag of goatskin with a piece of gun-barrel for the mouth and two sticks like those used for the ordinary fire bellows at the end. One's only guarantee of getting a good article is to buy the silver, have it tested by the government assayer, and let the jeweller make it up under his own eyes. Poor jewellery is often sold, and I remember buying a silver bracelet for a friend during a visit to Cairo which looked very pretty and very barbaric, but six months after its presentation it began to change colour, and proved to be brass washed with silver.

I see many watches displayed, for there is now a craze

among the peasants of Egypt to own watches. They want a cheap article, and in many cases buy a fresh watch every year. As a result the Swiss and Germans have been flooding the country with poor movements, put up in fancy German silver, nickel, and gun-metal cases, and are selling them at two dollars and upward apiece. They are not equal to our timepieces which sell at one dollar. Some of these watches are advertised as of American make, and sell the quicker on that account. I doubt not that a good American watch would sell well and displace the poor stuff now sent in by the Swiss. In one bazaar only brass articles are shown, while in another nothing but rugs are sold. The Persian Bazaar and the Turkish Bazaar are managed by men of these nations. In fact, wandering through the business parts of Cairo, one can see types of every oriental people on the globe.

CHAPTER VIII

INTIMATE TALKS WITH TWO KHEDIVES

TO-DAY Egypt is governed by a king. Her last sovereign had the title of sultan, and for fifty years before that she was ruled by khedives. There were four khedives in that time, and with two of them I had face-to-face chats. The first was with Tewfik Pasha, whom I met in the Abdin Palace during my second visit to Cairo. The other was with Abbas Hilmi, the son and successor of Tewfik, with whom I talked sixteen years later. Abbas Hilmi's pro-German intrigues finally led to his being deposed by the British and to the establishment of the Protectorate, which ended in the nationalization of Egypt under a ruler with the title of king.

I give you here the stories of the two interviews, reproducing the notes I made at the time.

* * * * * * *

I have just returned from a long audience with the Khedive of Egypt. Khedive is a Persian-Arabic word, meaning "king," and Mohammed Tewfik occupies much the same position now as the Pharaohs did in the days of Moses. It is true that he is in a measure the vassal of the Sultan of Turkey to whom he pays a tribute of about three and three quarter million dollars a year, and that he has also several European advisers who keep sharp watch over the revenues of his kingdom to see that a great part of them

go to the interest on the debts that he and his predecessors have contracted with the bankers of Europe. But he is, nevertheless, the king of Egypt, and as kings go to-day, he has more power than many other monarchs. His residence in Cairo is a grand palace with hundreds of rooms filled with magnificent furniture. He drives about the city with soldiers carrying swords, riding prancing horses in front of his carriage, and with a score of cavalry following behind. He has five hundred thousand dollars a year for his personal expenses, and he has several palaces besides the one he occupies in Cairo.

It was at the Abdin Palace that I met His Highness to-day. The interview had been arranged by the American consul general. We left his office together in the consular carriage. The dragoman of the legation, a bright-eyed Syrian in the most gorgeous of Turkish clothes of brown covered with gold embroidery and with a great sword shaped like a scimitar clanking at his side, opened the carriage door for us and took his seat by the coachman. The Arabian Jehu cracked his whip and away we went through the narrow streets. We drove by the modern European mansions of the rich Greeks, past the palaces of Egyptian princes from which came the sweet smell of orange flowers and over which whispered broad spreading palms. We then went through a business street amid droves of donkeys, through a caravan of camels, by veiled women clad in black, past the palace in which Ismail Pasha had his harem when he was khedive, and on into a great square of many acres. On the right of this square were vast barracks filled with Arab troops in blue uniforms and fezzes. A regiment of Egyptian troops was going through a gymnastic drill, performing

the motions as well to-day as they did at the time when our American General Stone was their commander and when General Grant reviewed them and said that they seemed to be good soldiers for everything except fighting.

The Abdin Palace, built in the form of a great horseshoe, is at the end of this square. It is a vast building of two stories, of brown stucco, with many windows and a grand entrance way in the centre. At the left there is a door leading to the harem, and as our carriage drove up we were passed by a closed coach drawn by two magnificent Arabian horses. On the box beside the liveried coachman sat a scowling eunuch whose black skin and dark clothes were all the more sombre by contrast with his bright red skull-cap. In front of the carriage ran two fleet *syces* with wands or staffs held up in the air in front of them, warning plebeians to get out of the way. I was told that the carriage was that of a princess who was about to make a call upon the Khedivieh, or queen. These runners, who are a part of every nobleman's turnout, are among the most picturesque sights of Egypt.

At the door of the palace stood two pompous soldiers with great swords in their hands. They were in Turkish costumes with embroidered jackets of blue and gold and full zouave trousers of blue broadcloth. Upon their heads were turbans, and their faces made me think of the fierce troops that conquered this land in the days of the Prophet. Passing up the massive steps we came to the palace door which was opened by an Arab clad in European clothes and wearing the red fez, which the Egyptian never takes off in the house or out of it. We were ushered into a grand entrance hall, floored with marble mosaic, the walls of which were finished in cream and gold. In front of us a

staircase so wide that two wagonloads of hay could be drawn up it without touching led by easy flights to the second floor, while at the right and the left were the reception rooms for visitors and halls leading to the apartments reserved for the chamberlains, masters of ceremonies, and other officers of the royal household. After chatting a moment with one or two of the cabinet ministers, who were just passing out after a council with His Highness, we moved on up the stairs. In one of the drawing rooms on the second floor we were met by another Egyptian official in black clothes and red fez who conducted us to a reception room, the door of which stood open, and motioned us to enter.

In the centre of this room, which was not larger than a good-sized American parlour, there stood all alone a man of about thirty-six years of age. He was dressed in a black broadcloth coat buttoning close up at the neck like that of a preacher. Lavender pantaloons showed below this, fitting well down over a pair of gaiter-like pumps. On the top of his rather handsome head was a fez of dark red with a black silk tassel. This man was the Khedive of Egypt. He is, I judge, about five feet six inches in height and while rather thick-set, does not weigh more than one hundred and fifty pounds. His frame is well rounded, his head is large, and his features are clean cut. He has a nose slightly inclined to the Roman. His forehead is high, and the dark brown eyes that shine from under it change from the grave to the smiling during his conversation. The Khedive extended his hand and said he was glad to see me and that he liked to have Americans come to Cairo. Seating himself on a divan, with one leg doubled up under him, he motioned me to join him. There was an absence of

pomp or snobbishness in his manner, and though dignified he did not put on half the airs of the average backwoods member of our House of Representatives. As he seated himself, his black coat opened so that I had a chance to note the contrast between his costume and that of the gorgeous rajahs whom I have met in India. His only jewellery consisted of a set of pearl studs the size of the smallest of peas and a watch chain of thin links of gold. He wore a cheap black bow tie in his white turnover collar, and his cuffs, though scrupulously clean, had not the polish of the American laundry.

Besides being a good French scholar, Tewfik Pasha speaks English, and that was the language used in our conversation. In speaking of his life as Khedive, he said:

"I am told that many people envy me my position. They say that I am a young man whose lot must be a pleasant one. They do not understand the troubles that surround me. Many a time I would have been glad to lay down all the honours I have for rest and peace. The ten years of my reign have been equal to forty years of work and of worry. If life were a matter of pleasure I would be a fool to remain on the throne. I believe, however, that God put man on the world for a purpose. Duty, not pleasure, is the chief end of man. I do the best I can for my country and my people, and I feel happiest when I do the most work and when my work is the hardest."

As the Khedive said these words I thought of the thorns which have filled the pillow of his reign. I thought of how, upon his entering manhood, his father Ismail was deposed and he was put upon the throne. I thought of how he boxed the ears of the messenger who came to tell him

"In the famous Abdin Palace I interviewed Tewfik Pasha, when he was Khedive of Egypt, and later, in the same audience room, talked with Abbas Hilmi, his son and successor."

The gorgeous kavass is essential to the official dignity of the representative of foreign governments in Cairo. Besides attending on the person of minister or consul general on state occasions, he also serves as major domo and general "fixer."

he had succeeded to that uncomfortable seat. I thought of his trouble under foreign dictation. I thought of the plots and nearly successful rebellion of Arabi Pasha, of the revolution of the Mahdi, of the creditors who to-day are grinding Egypt between their upper and nether millstones, of the danger of assassination, and of the other perils that are ever present about the throne of an oriental monarch. Recalling all these things, I could appreciate why his mouth hardened and his eyes grew sad when he spoke thus to me.

The talk then turned upon the condition of Egypt and its future, but as to these matters Tewfik was reticent. He spoke proudly of the reforms which he had inaugurated in government and of the fact that now, though the taxes were heavy, every peasant knew just what he would have to pay and that the taxes were honestly collected. He spoke of the improvement of the courts and said that the *pasha* and the *fellah* were equal before the law. "When I came to the throne," said he, "the people were surprised that I put the prince on the same footing as other people. Now, there is no difference in justice. The prince and the peasant are the same in our courts, and the former may be punished like the latter."

At this point, coffee and cigarettes were brought in by the servants of the palace. The coffee was *à la Turque*. It was served in little china cups shaped like egg cups, in holders of gold filigree, each holding about three tablespoonfuls of rich black coffee as thick as chocolate and as sweet as molasses. There were neither saucers nor spoons. Trying to follow the Khedive's example I gulped down half the contents of the cup at a swallow. It was as hot as liquid fire. I could feel the top of my mouth rising in

a blister, the tears came into my eyes, and my stomach felt as though it had taken an internal Turkish bath. Tewfik Pasha took the boiling mixture without winking and went on talking as though his throat were used to scalding fluids. Surprised to see him refuse a cigarette, I asked him if he did not smoke. He replied:

"No! I neither smoke nor drink. I do not drink for two reasons. I believe a man is better off without it, and, what is of more moment to me, it is against the laws of life as laid down in the Koran. We do not believe it right to drink anything intoxicating and good Moslems drink neither wine nor liquour. I believe that every man should be faithful to the religion which he professes. My faith is that of Islam and I try to follow it as well as I can. I am not illiberal in it, however, for I tolerate all religions and all sects in my kingdom. We have Copts, Jews, and Christians, and your missionaries are at work in the land. They make very few converts, if any, among the people of my faith, but they have schools in Upper Egypt that are doing much in the way of education."

The consul general here spoke of the Khedive's knowledge of the Koran, mentioning the fact that His Majesty knows the whole book by heart. There is no doubt that Tewfik has as much faith in his religion as we have in ours. He spoke with some pride of the Mohammedan conversions in Africa and the fact that there are more than one hundred millions of people in the world who believe the same as he does. We talked of the band of one hundred American Catholics, who are stopping in Egypt on their way to the Holy Land, and the Khedive said he was interested in these pilgrims who are following the footsteps of Joseph and Mary. He spoke of the immense

sums brought into Egypt by tourists and said that it bettered the business of his country.

Throughout our whole conversation the talk was of the most cordial and unceremonious character and I left the palace with the impression that the Khedive of Egypt is a man of great sense and of more than ordinary ability. He stands well with his people. Indeed, the leading men in Cairo tell me he would do much for Egypt if he were not hampered by foreign intervention. He gave up a number of his palaces a year or so ago and he is, for a king, most economical. Had other rulers of the past been equally careful, Egypt would be a rich country to-day instead of being ridden with debts. He is a man of domestic tastes, and though a Mohammedan and an oriental king, he is the husband of but one wife to whom he is as true as the most chaste American. A friend of Tewfik Pasha reported to me a talk he recently had with him upon this subject in which the Khedive expressed himself strongly in favour of monogamy: "I saw," said he, "in my father's harem the disadvantages of a plurality of wives and of having children by different wives, so I decided before I came to manhood that I would marry but one woman and would be true to her. I have done so, and I have had no reason to regret it."

From what I can learn the ruler's family life is a happy one. He is much in love with his wife, who is said to be one of the cleverest women of Egypt. A woman friend of hers, who visits often at the royal harem, tells me that this queen of Egypt is both beautiful and accomplished. She keeps up a big establishment separate from that of the Khedive, and when she sits down to dinner or breakfast it is not with her husband, but with her own ladies. The

Khedive eats with his officers, according to Mohammedan etiquette, and his apartments, or the *salumlik*, are separate from hers. Both she and her husband have done much to break down the rigidity of Mohammedan social customs. Tewfik Pasha takes the Khedivieh with him wherever he goes, though she usually travels in a separate train or car. She has stuck to the Khedive through the stormiest days of his reign. During the last war she refused to take refuge on the English gunboats when invited to do so.

Both the Khedive and the Khedivieh are wrapped up in their four children. They have two boys and two girls. The boys are Abbas Hilmi, who will be fifteen years old in July, and Mehemet Ali, who is two years younger. These boys are now at school in Berlin. They speak French, English, German, and Arabic, and they are, I am told, very clever. The girls are rather pretty, cream-complexioned maidens of eight and ten, who are as much like American girls as they can be considering their surroundings. They wear European clothes and may be seen along the sea shore at Alexandria, walking together and swinging their hats in their hands like other little girls at our summer resorts. They have European governesses and talk French quite well.

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In Cairo sixteen years later I found on the throne Abbas Hilmi who was a boy at school when I had my interview with his father. Again through the courtesy of our consul general an audience with the Khedive was arranged for me, and together we went to the palace to pay our respects. Here is the story of my visit:

Though stripped of most of their political powers, the khedives surrounded themselves with all the trappings of rulership, and made the most of the magnificence of the Abdin Palace in Cairo, where they granted audiences and gave grand balls.

One of the most famous hotels in the world is Shepheard's, at Cairo, through which for many years leading characters of all nations have passed on their way to the East or to the West. Its site was once part of the garden of Princess Kiamil, daughter of Mehemet Ali.

A school among the Moslems is a simple matter, consisting usually of young men sitting at the feet of a teacher whose sole textbook and equipment are the Koran, lengthy passages of which are learned by rote.

In the very room where I met Tewfik Pasha I was received in the same cordial and informal manner by his son, the present Khedive. He does not look much like his father. He is a trifle taller and seems to have more dignity, perhaps because in place of his father's simple garb Abbas Hilmi wears the more formal frock coat and striped trousers of modern officialdom.

My conversation with His Highness covered a wide range. It dealt with the present prosperity of Egypt, and I could see that he understands both his country and its people. He thinks that the Nile valley has by no means reached the maximum of its development, and says that by increasing the dams and drainage facilities Egypt might yield much greater crops than she does now. I spoke to him about having met his father, mentioning the great interest that Tewfik Pasha showed in Egypt and its future. The Khedive expressed a similar desire to do all he could for the Egyptians, but practically the only matters in which he has full sway are those regarding his own estates, his management of which shows great business capacity. He has an allowance of five hundred thousand dollars a year out of the public treasury, but in addition he owns thousands of acres of valuable lands, so his private property must be worth many millions of dollars. He handles this in such a way that it pays well, his experiments and improvements being the talk of farmers and business men throughout the Nile valley.

I have heard a great deal of these khedivial farms since I have been in Egypt. Abbas Hilmi inherited much land from his father, but he has other large tracts, which he himself has redeemed from the desert, and yet others which he has made good by draining. Not far from Cairo he

owns twenty-five hundred acres which a few years ago were covered with swamps, quagmires, and hillocks. He bought this cheap and then began to improve it. He cut down the hills, drained the swamps, and put water on the land. At present that estate is paying over sixty thousand dollars a year, bringing His Highness thirty per cent. and upward on his investment.

He has another great farm not far from Alexandria which was all desert not long ago. The Khedive has irrigated it and thus turned four thousand waste acres into cultivated fields. Farm villages have grown up about them and His Highness has so laid out the estate with trees and flowers that it is said to be like an earthly paradise. In one place he has a plantation of fifteen thousand mulberry bushes, the leaves of which furnish food for his silkworms. This estate is at Montzah, a few miles out of Alexandria, on a beautiful bay of the Mediterranean Sea. Abbas Hilmi has built a palace there, or rather two palaces, a little one for himself and a larger one for his family. In other parts of the estate he is carrying on all sorts of breeding experiments. He has chicken houses and rabbit hutches as well as a tower containing thousands of pigeons.

The Khedive is interested in fine stock and is doing much to improve that of Egypt. On his various farms he has high-bred horses, cattle, and sheep. He has a large number of Arabian thoroughbred horses, and some Jersey, Swiss, and other fine breeds of cows. His water buffaloes, known here as *gamoushes*, are far better than any others of the Nile valley. He is also breeding cattle for oxen and mules for draft animals. He has a school on his estate near Cairo where two hundred boys are being educated to take

places on his various properties. This school is run at his own expense, the boys being taught farming and surveying as well as reading, writing, and arithmetic. The course of study lasts for five years, at the end of which the graduate is pretty sure of a good position as a steward or overseer on one of the khedivial farms.

Abbas Hilmi has made a great deal of money within the last three or four years. He is investing largely in Cairo and is building apartment houses with elevators, telephones, electric lights, bathrooms, and all other modern improvements. He has a brick factory on one of his estates near here, and his profits from cotton and other crops must be very large.

Abbas Hilmi's wife is the Princess Ikbal Hanem, whom he married when he was about twenty. She is said to be both accomplished and beautiful, but like all Mohammedan ladies, she leads a secluded life, and does not appear at the great functions at the palace. She is not seen at the Khedive's grand ball, given to his officials and the foreigners about once a year, to which something like fifteen hundred guests are invited. She is present, all the same, however, for she has a screened chamber looking down upon the ballroom, with the curtains so arranged that she can watch the dancing and flirting while she herself is unseen. Her Majesty has gorgeous apartments in each of the palaces and a little court of her own of which the noble ladies of Egypt are a part.

CHAPTER IX

EL-AZHAR AND ITS TEN THOUSAND MOSLEM STUDENTS

THE biggest university of the Mohammedan world is situated in Cairo. It has, all told, over ten thousand students, and its professors number more than four hundred. Its students come from every country where Mohammedanism flourishes. There are hundreds here from India, and some from Malaya and Java. There are large numbers from Morocco, as well as from Algeria, Tunisia, and Tripoli. There are black Nubians, yellow-skinned Syrians and Turks, and boys from southeastern Europe with faces as fair as our own. There are long-gowned, turbaned Persians, fierce-eyed Afghans, and brown-skinned men from the Sudan and from about Kuka, Bornu, and Timbuktu. The students are of all ages from fifteen to seventy-five, and some have spent their lives in the college.

This university has been in existence for almost a thousand years. It was founded A.D. 972, and from that time to this it has been educating the followers of the Prophet. It is to-day perhaps the strongest force among these people in Egypt. Ninety-two per cent. of the inhabitants of the Nile valley are Mohammedans and most of the native officials have been educated here. There are at least thirty thousand men in the public service among its graduates, while the judges of the villages, the teachers in the mosque schools, and the *imams*, or priests, who serve

A fifteen-minutes drive from the hotel quarter through the bazaars of the Mouski and the narrow "Street of the Booksellers" brings one to the university of El-Azhar, for 900 years the educational centre of the Moslem world.

The various nationalities are segregated in the courtyard porticos of El-Azhar. Instruction is free and almost entirely in the Koran. If a student doesn't like one professor, he moves on to another.

throughout Egypt are connected with it. They hold the university in such high regard that an order from its professors would be as much respected as one from the government, if not more.

The university education is almost altogether Mohammedan. Its curriculum is about the same as it was a thousand years ago, the chief studies being the Koran and the Koranic law, together with the sacred traditions of the religion and perhaps a little grammar, prosody, and rhetoric. A number of the professors also teach in the schools connected with the mosques of the Egyptian villages, which are inspected, but not managed, by the government. Even there the Koran takes up half the time, and religion is considered far more important than science.

Indeed, it is wonderful how much time these Egyptians spend on their bible. The Koran is their primer, their first and second reader, and their college text book. As soon as a baby is born, the call to prayer is shouted in its ear, and when it begins to speak, its father first teaches it to say the creed of Islam, which runs somewhat as follows:

"There is no God but God; Mohammed is the Apostle of God," and also "Wherefore exalted be God, the King, the Truth! There is no God but Him! The Lord of the glorious Throne."

When the boy reaches five or six he goes to the mosque school, where he squats down, cross-legged, and sways to and fro as he yells aloud passages from the Koran. He studies the alphabet by writing texts with a black brush on a slate of wood or tin. Year after year he pounds away, committing the Koran to memory. There are more than two hundred and fifty thousand pupils in the Egyptian schools, of whom a majority are under thirteen

years of age. It was brought out by a school census some years ago that over fifty thousand of these boys could recite a good part of the Mohammedan bible, and that forty-five hundred had memorized the whole from beginning to end. Another forty-five hundred were able to recite one half of it from memory, while thirty-eight hundred could correctly give three fourths of it. When it is remembered that the Koran contains one hundred and fourteen divisions and in the neighbourhood of eighty thousand words, it will be seen what this means. I'm willing to bet that there are not four thousand children in the United States who can reel off the New Testament without looking at the book, and that with our vast population we have not fifty thousand boys who can recite even one book of our Bible from memory and not mispronounce a word.

The Mohammedans reverence their bible quite as much as we do ours. While it is being read they will not allow it to lie upon the floor, and no one may read or touch it without first washing himself. It is written in Arabic and the Moslems consider its style a model. They believe that it was revealed by God to Mohammed, and that it is eternal. It was not written at first, but was entirely committed to memory, and it is to a large extent in that way that it is still taught. The better classes of Mohammedans have beautiful copies of this book. They have some bound in gold with the texts illuminated, and the university has a collection of fine editions which is looked upon as one of its greatest treasures.

This famous Mohammedan university is situated in the heart of business Cairo. When I rode to it to-day (on my donkey) I passed through a mile or more of covered ba-

zaars, thronged with turbaned men and veiled women and walled with shops in which Egyptians were selling goods and plying their trades. Known as the Mosque of El-Azhar, or "The Resplendent," it is one of the oldest mosques of Cairo. It covers several acres, and the streets about it are taken up largely with industries connected with the college. One of the bazaars is devoted to book-selling and bookbinding and another to head dressing. Since every Mohammedan has his head shaved several times a week, there are in this institution ten thousand bald-headed students. The men wear turbans of white, black, or green, and there is not a hair under them except on the top of the crown, where a little tuft may be left that the owner may be the more easily pulled into heaven.

My way was through this street of the barbers, where I saw students kneeling down while being shaved. One or two were lying with their heads in the laps of the barbers at work on their faces. The barbers used no paper, wiping the shavings on the faces of their victims instead. At the end they gave the head, face, and ears a good washing.

As I approached the entrance of the university I saw many young men standing about, with their books under their arms, and some carrying manuscripts in and out. Each student has his shoes in his hand when he enters the gates, and before I went in I was made to put on a pair of slippers over my boots. The slippers were of yellow sheepskin and a turbaned servant tied them on with red strings.

Entering the gate, I came into a great stone-flagged court upon which the study halls face. The court was surrounded by arcades upheld by marble pillars, and in the arcades and in the immense rooms beyond were thou-

sands upon thousands of seekers after Koranic learning. They sat in groups on the floor, listening to the professors, who were lecturing on various subjects, swaying back and forth as they chanted their words of wisdom. Some of the groups were studying aloud, until the confusion was as great as that at the Tower of Babel when the tongues of the builders were multiplied. There were at least five thousand men all talking at once, and all, as it seemed to me, were shouting at the tops of their voices. As I made my way through the mass, I had many unfriendly looks and narrowly escaped being mobbed when I took snapshots of the professors and students at work under the bright sun which beat down upon the court. The inmates of this school are among the most fanatical of the Mohammedans, and I have since learned that the Christian who ventures among them may be in danger of personal violence.

I spent some time going from hall to hall and making notes. In one section I found a class of blind boys who were learning the Koran, and I am told that they are more fanatical than any of the others. In another place I saw forty Persians listening to a professor. They were sitting on the ground, and the professor himself sat flat on the floor with his bare feet doubled up under him. I could see his yellow toes sticking out of his black gown. He was lecturing on theology and the students were attentive.

Another class near by was taking down the notes of a lecture. Each had a sheet of tin, which looked as though it might have been cut from an oil can, and he wrote upon this in ink with a reed stylus. The letters were in Arabic so I could not tell what they meant.

I looked about in vain for school furniture such as we

have at home. There was not a chair or a table in the halls; there were no maps or diagrams and no scientific instruments. There were no libraries visible; the books used were mostly pamphlets.

There is no charge for tuition and the poor and the rich are on much the same level. Many of the undergraduates are partially supported by the university; it is no disgrace to be without money. Some of the students and professors live in the university. They sleep in the schoolrooms where they study or teach, lying down upon mats and covering themselves with their blankets. They eat there, peddlers bringing in food and selling it to them. Their diet is plain, a bowl of bean soup and a cake of pounded grain, together with some garlic or dates, forming the most common meal. These things cost little, but to those who are unable to buy, the university gives food. Nine hundred loaves of bread are supplied without charge to needy students every day.

As I passed through the halls I saw some of the boys mending their clothes and others spreading their wash out in the sun to dry. They did not seem ashamed of their poverty and I saw much to admire in their attitude.

The professors serve for nothing, supporting themselves by teaching in private houses or by reading the prayers at the mosques. It is considered such a great honour to be a professor here that the most learned men of the Mohammedan world are glad to lecture in the El-Azhar without reward. In fact, the only man about the institution who receives a salary is the president, who has ten thousand piastres a year. This seems much until one knows that the piastre is only five cents, and that it takes ten thousand of them to make five hundred dollars.

I asked about the government of the university, and was told that it had a principal and assistant professors. All students are under the direct control of the university, so if they misbehave outside its walls, the police hand them over to the collegiate authorities for punishment. The students are exempt from military service, and it is said that many enter the institution for that reason alone. There seem to be no limitations as to age or as to the time one may spend at the college. I saw boys between six and eight studying the Koran in one corner of the building, and gray-bearded men sitting around a professor in another. Most of the scholars, however, are from sixteen to twenty-two or of about the same age as our college boys at home.

This university has little to do with the great movement of modern education now going on in Egypt. It is religious rather than academic, and the live, active educational forces outside it are two. One of these is the United Presbyterian Church and its mission school at Asyut, about three hundred miles farther up the Nile valley, and the other is the government. There are besides about one thousand schools supported by the Copts, the most intelligent of the native population.

When the British took over the administration Egypt was very illiterate, and even now not more than six per cent. of the natives can read and write. But the desire for learning is increasing and the system of common schools which has been inaugurated is being developed. There are now about four thousand five hundred schools in the country, with over three hundred thousand pupils. There are a number of private schools, several normal schools, and schools devoted to special training. A system

of technical education has been started and the government has model workshops at Bulak and Asyut. At Cairo it has a school of agriculture, a school of engineering, and schools of law and medicine.

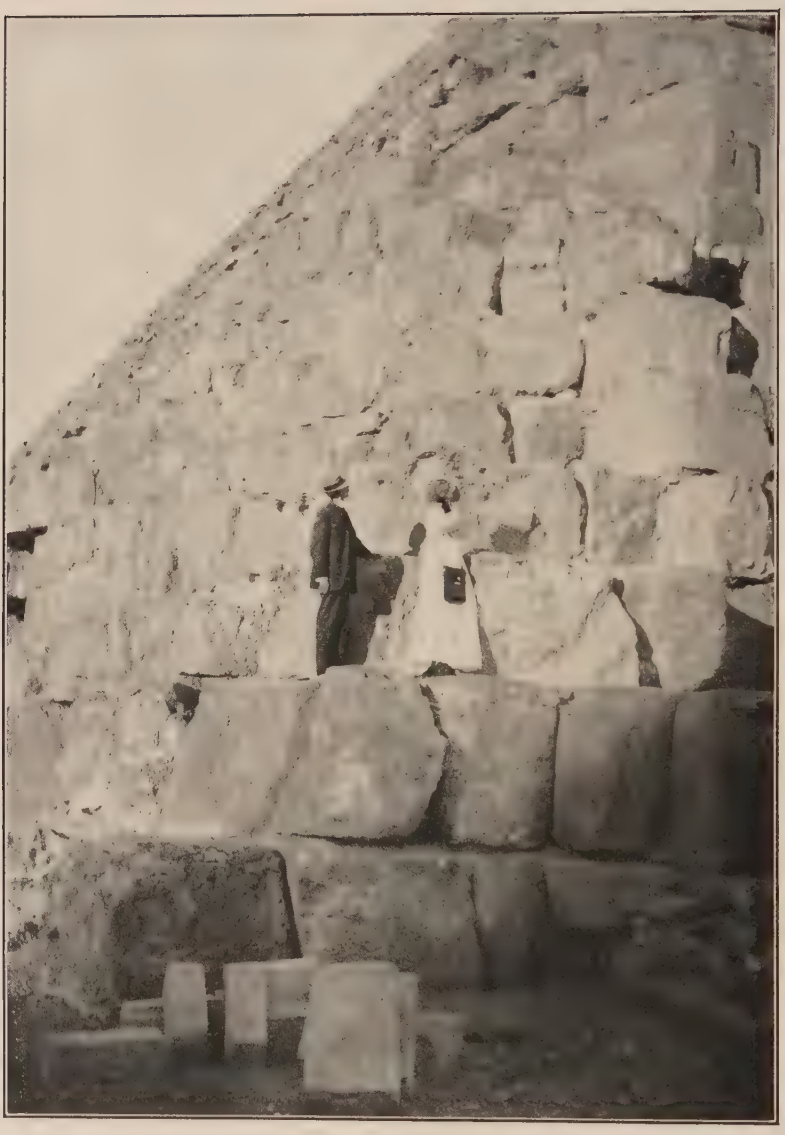
An important movement has been the introduction of modern studies into the village schools belonging to the Mohammedans. These were formerly, and are to some extent now, under the university of El-Azhar. They were connected with the mosques and taught by Mohammedan priests. They were supported by the people themselves and also by a Mohammedan religious organization known as the Wakf, which has an enormous endowment. There were something like ten thousand of these schools scattered over the lower part of the Nile valley, with an attendance of nearly two hundred thousand. They taught little more than the Arabic language, the Koran, and reading, writing, and arithmetic. Lord Cromer wanted to bring these schools under the ministry of public instruction and introduce our modern studies. When the teachers refused to accept supervision, he offered to give every mosque school that would come in an appropriation of fifty cents for every boy and seventy-five cents for every girl. This brought good results. At present only half of each school day is set apart for the study of the Koran and the precepts of Islam, and I am told that such of the Mohammedan pupils as do well are more likely to get appointments under the government than if they were Christians or Copts.

The girls of Egypt are beginning to get an education. For a long time it was hard to persuade their parents to send them either to the government or the private schools, but of late some of the native educated women have taken

places as teachers and many girls are now preparing themselves for school work. Other parents send their daughters to school to give them a good general education, because the educated boys want educated women for wives. There are at present something like two hundred girls' schools, with an attendance of nearly fifty thousand pupils. An effort is being made to establish village schools for girls, and the time will come when there will be girls' schools all over Egypt and the Mohammedan women may become educated.

We are apt to think that the only kind of charity is Christian charity. I find that there is a great deal of Mohammedan charity as well, and that many of the richer Moslems give money toward education and other public welfare work. The endowment of the El-Azhar university is almost entirely of this nature. Some of the village schools are aided by native charity as are also some high schools. A Mohammedan benevolent society at Alexandria raised fifty thousand dollars for an industrial school there. That school accommodates over five hundred pupils, and has an endowment of about four thousand dollars per year. In the industrial school at Abu Tig, founded and liberally endowed by Mahmoud Suleiman, weaving, carpentry, blacksmithing, and turning are taught free of charge. Towns of the Faiyum and Beni-Suef have raised money for industrial schools and the government gives assistance to twenty-two such institutions. There is also talk of a national university along modern lines, to be supported by the government. This university will be absolutely scientific and literary and its doors will be wide open to all desirous of learning, irrespective of their origin or religion.

A house thirty feet square might rest on the flattened apex of the Great Pyramid, but originally it was much higher and came to a sharp point. All the pyramids have been robbed of their stones by house builders in Cairo.



"If you will climb upon your dining room table 250 times you will have an idea of my ascent of the stepping-stone sides of the Great Pyramid. At the base the huge blocks are waist-high."

CHAPTER X

CLIMBING THE GREAT PYRAMID

ON MY second trip to Egypt I followed a telephone line in going from Cairo to the Pyramids and as I waded through the sands from the edge of the Nile valley up the plateau where old Cheops stands, I could see a party of foreigners playing lawn-tennis in the court of the hotel which has been built near its base. The next improvement in modernizing Egypt will probably be cable roads running to the top of these great piles of stone. Already a flagstaff has been planted on the very apex of the biggest of them.

In driving to the Pyramids I passed along an avenue of acacia trees, the intertwining branches of which formed a grand arbour extending to the desert seven miles away. This splendid road was made in a few weeks by order of the extravagant Khedive Ismail Pasha at the time of the opening of the Suez Canal. He had it constructed so that his distinguished visitor, the Empress Eugénie, might drive comfortably to the Pyramids! It is built ten feet above the fields of the Nile valley and on each side the green stretches away to the north and south until it is lost in the horizon. One sees groves of palm trees, camels and donkeys, farmers ploughing and women carrying water, together with the other strange scenes that make up the oriental setting of this land of the Arabian Nights.

CAIRO TO KISUMU

Leaving Cairo, I crossed the fine iron bridge which spans the Nile and is guarded by great bronze lions at each end. I passed the tax office; I saw farmers bringing chickens, pigeons, and grass or vegetables into Cairo and stopping to pay a tax upon them before they could offer them for sale. On I went past a branch of the Nile, where naked men stood in the water and slapped clothes up and down on stones in washing them; by wells where women were filling great jars with water and bearing them away upon their heads, as they did in the days of Rachel when Jacob gave her that kiss and made the scene which the Italian artists love to paint; and on out into the country, through this greenest of the green valley of Egypt. I went by caravans of camels ridden by Bedouins who were carrying merchandise into Cairo to sell. The air was as fresh as America in springtime, and the sweet scent of the grass and the clover was blown into my face by the bracing wind from the desert.

I saw the Pyramids when I left the city. They increased rapidly in size as I came nearer to them, and at the edge of the desert they looked at first like huge heaps of stone. Disappointment came over me. I felt that the travellers of all ages had lied.

Half a mile farther and I was at their base. Now I changed my opinion. The Pyramids are more wonderful than they have ever been painted, and their immensity grows upon one more and more as he looks. As I stood in the middle of one of the sides of the Great Pyramid, it seemed as though the whole sky were walled with stone. The top towered above my head, almost kissing the white clouds which sometimes float in this clear Egyptian sky.

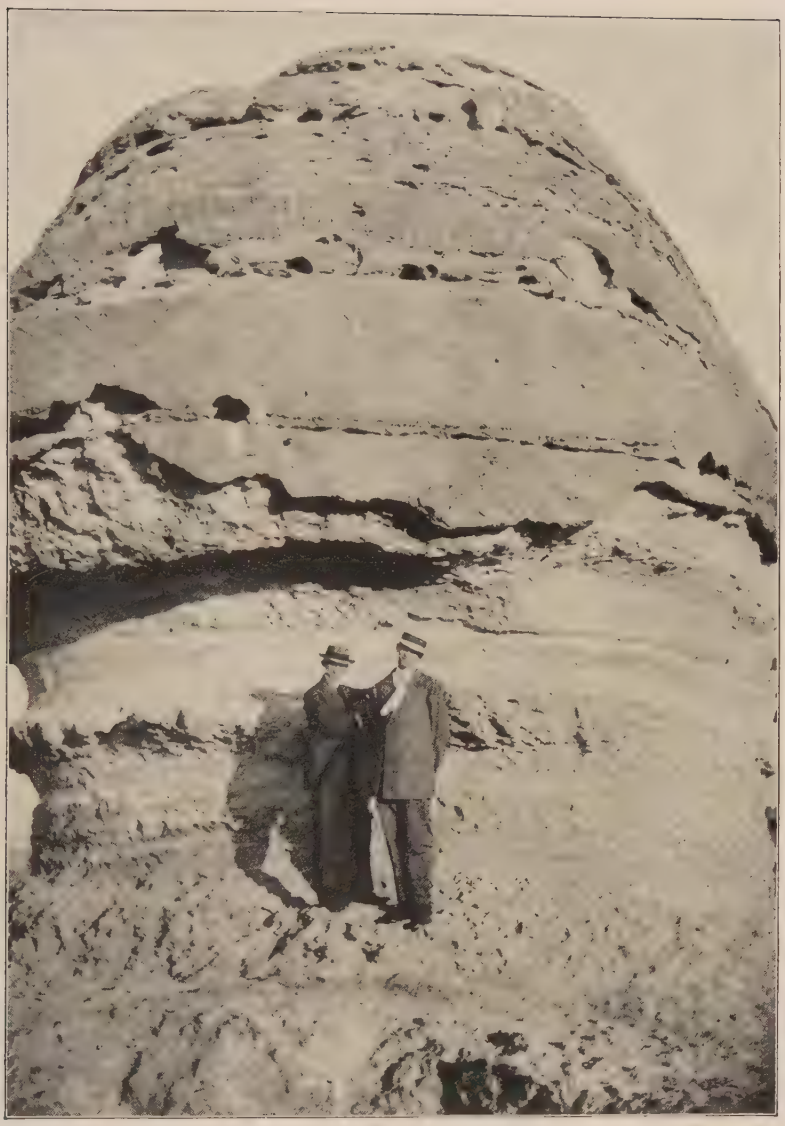
CLIMBING THE GREAT PYRAMID

The Great Pyramid has a base covering thirteen acres, and if Herodotus told the truth, it was during his lifetime about half as high again as the Washington Monument. The stones in it to-day would make eight hundred and fifty such monuments, yet fully one half of it, I should judge, has been carted away for buildings in Cairo. To-day it is over three hundred feet lower than Herodotus described it, and its sides do not measure more than seven hundred and fifty feet. It is an almost solid mass of stone, cut in mighty blocks, which are piled up in the shape of steps, growing smaller in size as they reach the top, and terminating in a flat platform large enough to build upon it a house thirty feet square. Such a house would be four hundred and eighty-two feet above the desert. It would command a view of the Nile valley for miles, and its back windows would look out upon the great, billowy plains of golden sand. This pyramid is built right in the desert, as are, indeed, all of the sixty pyramids of greater or less size found in different parts of Egypt. The south windows of the house would have a good view of the Pyramids of Sakkarah, which stand out in geometrical figures of blue upon the site of old Memphis, while on the front porch you could have as an ornament in your great yard below the stony-eyed Sphinx who sits with his paws stretched out before him in the same attitude as when the Pyramids were built. He has been worn by time and mutilated by man, but he still retains the majesty and solemnity he had in the past.

The Pyramids themselves are by no means young. The king who built the Great Pyramid for his tomb lived some three thousand odd years before Christ. Now, five thousand years later, we Americans climb to the top

of the huge pile of stones he put up to contain his royal bones and go into the chambers in its interior, which he thought would outlast the ages. With magnesium lights we explore the recesses of the rooms in which he expected to be secluded for eternity, and take photographs in the heart of this old ruler's tomb.

The corpse of the king was taken out long ago and history does not record what became of it. All we know of him comes from Herodotus, who says he was a vicious, bad man, and that during the fifty years he ruled the Egyptians he oppressed the people terribly. He built the Pyramid by forced labour, keeping a gang of more than one hundred thousand workmen at it for over twenty years. The stones forming the outside, which have now been taken away, were even larger than those still standing, but many of those that are left are as high as a table and many feet in length. The sides of this Pyramid are in the form of immense stairs, which narrow as they go upward. There are two hundred and fifty of these high steps. If one will go to his dining room and climb upon the table two hundred and fifty-two times he will experience something of the work I had in climbing up the Pyramid. His exertion will be harder, however, for he will not have the help of three half-naked Arabs who were given to me by the Sheik of the Pyramids, and who almost worried the life out of me in their demands for *backsheesh* all the way up. My wife happened to call me by my given name and during the remainder of that trip I was "Mr. Frank" to these heathen. While they jerked my arms nearly off in pulling me from one ledge to another, they howled out in a barbaric sing-song a gibberish of English, interspersing it with Cherokee whoops, something like this:



Mr. Carpenter and his son are standing on the nape of the neck of the Sphinx. It has seen more years than the Pyramids and has been mutilated by successive conquerers and vandals and worn away by the sand blasts of the desert.

Helouan and its sulphur springs, once the resort of the Pharaohs, is again fashionable, and a princess' palace now serves as hotel. The porch canopy is of what is called tentwork, made of coloured pieces applied in elaborate designs.

"All right! Very good!!
Hard work. Good boys!!
Mr. Frank satisfied!!
On top pay money."

This was a continual reminder of my indebtedness to them, and they enforced their song with more numerous jerks the higher we rose. They were surprised when I refused to give them any *backsheesh* until we got to the bottom, and lifted me down about as jerkily as they had pulled me up.

I went inside the Pyramid to examine the great chambers, which are quite as wonderful as the outside construction. They are built of granite blocks so closely joined that one cannot put a pin between the crevices. The Queen's Chamber is seventeen feet wide by eighteen feet long, and its ceiling is twenty feet high. It is as dark as the night which the Lord spread over Egypt when He wanted to soften the heart of Pharaoh, but the night was turned into day by the burning of magnesium, and we could see the wonderful polish on the walls. The King's Chamber is lined entirely with granite and is as big as a country church. It would take one hundred and twenty-five yards of carpet to cover its floor. Its ceiling, which is nineteen feet high, is roofed with nine enormous slabs of granite, each of which is eighteen feet long. The only thing within the chamber is a great sarcophagus about three feet wide and three feet deep, and just long enough to contain the body of a man. There are also other chambers in this Pyramid. When one considers the machinery of the times, its structure is a marvel. Its cost can hardly be estimated in the money of to-day. Before it was mutilated, there was on it a record of the radishes, onions, and garlic which had

been distributed among the workmen. These alone cost one million seven hundred and fifty thousand dollars, so the monument itself must have cost many millions more. Yet, after all, it is nothing but the tomb of a king.

In coming down from the top of the Pyramid my Bedouin guides landed me at the opposite corner from whence I started, and here was a camel ready to take me to the Sphinx. It is only about a quarter of a mile from one to the other, but few ever think of walking through the sand, especially after the Pyramid exercise.

The Sphinx seems bigger, more sombre, and more wonderful than ever. The body is that of a lion and the face and bust are those of a remarkably good-looking Negro man. The complexion was originally pink, but the colour has been worn away by the sands of the desert, which have been blown against it for more than six thousand years, and all that remains is a little red paint just under one eye. The Greek sphinx bears the head of a woman, but the Egyptologists say the Sphinx of Gizeh represents Harmachis, the God of the Morning, and the face that of the king who had the statue hewn from the rock. It dates as far back as history extends and its stony eyes have seen civilization after civilization rise and pass away.

It would take a good-sized city lot to hold the Sphinx. The body is one hundred and forty feet long, and the paws each measure fifty feet. The head alone is so big that a vault fourteen feet square and the height of a three-story house would be just large enough to contain it. Though you measure six feet in your stockings and have arms as long as those of Abraham Lincoln, if you stood on the tip of this old monarch's ear you could not touch the crown of his head. The ear by actual measurement has a length

of over four feet, and if that mouth would open it could swallow an ox. The nose is five feet seven inches long, and originally partook of an Ethiopian character. Now, however, it is sadly mutilated, for it has formed a target both for the conquering Mohammedans of the past and the vandal Bedouins of a later day. Tradition says, too, that Napoleon cut off the nose to spite Egypt when he was forced to retreat from the country. In front of the Sphinx lies a temple, in the ruins of which one moves about under ground through a series of dark chambers where some wonderful statues and mummies were found. Among the halls there is one room seventy-nine feet long and twenty-three feet wide.

From Cairo I drove out five miles to the site of Heliopolis, the ancient City of the Sun, where stands the oldest obelisk in the world. This monument was very old when Abraham came down into Egypt, and under its shadow Joseph, when he was manager of Pharaoh's estates, came to court Asenath, the daughter of a priest in the great temple to which the obelisk belonged. Near it Mary rested with the child Jesus during the flight from the wrath of Herod the King. Heliopolis, first set up for the worship of the sun-god Ra, the ancestor of all the Pharaohs, later became the Boston of Egypt where two thousand years ago the wise men studied logic, and it was in the Temple of Heliopolis that Plato taught philosophy and Herodotus studied history. We learn from some of the hieroglyphics of Egypt that the temple had more than twelve thousand employees connected with it. The road to it leads through a long avenue of acacia trees past the royal summer palace, and the city stood in one of the most fertile portions of the valley of the Nile. Not a vestige of

its ruins now remains save this obelisk, which stands sixty feet above the ground in the midst of green crops. Not far from it two buffaloes, with cloths over their faces, went round and round pulling the bar which turns the great water-wheel of a squeaking *sakieh*. I found a few beggars asking for *backsheesh* and saw half-a-dozen Mohammedans sitting gossiping by the roadside; but there was nothing else except the green of the fields, with a bleak and bare desert stretching away beyond them and the shadowy ghosts of the Pyramids looming large on the distant horizon. The obelisk is almost the twin of the one in Central Park, New York, save that the hieroglyphics on its sides are more deeply cut and the bees have made their nests in many of the figures. Bees very like our honey bees swarm over the monuments of Egypt. I saw one colony living on the side of the Sphinx, and the whole of one surface of this obelisk is covered with their cells.

Seen from a distance, the Pyramids are like gray cones rising above the horizon and are frequently disappointing in their first impression. It is only on closer view that their enormous size and the miracle of their ever being built are realized.

Gangs of brown-skinned *fellaheen* dig day after day, uncovering the tombs and the history of centuries ago. Contractors say that the Egyptian peasant prefers a basket to a wheelbarrow for dirt carrying, solely because his grandfather used a basket.

CHAPTER XI

THE PYRAMIDS REVISITED

THIS is the third time that I have made lengthy visits to the Pyramids of Egypt. On my first trip I rode to them on a donkey. The next time I came out from Cairo in a comfortable carriage, and to-day I passed over the same route on an electric trolley, paying seven and a half cents for the trip. The street cars to the Pyramids start at the end of the bridge, opposite Cairo, and pass along the side of the wide avenue shaded by acacia trees. The cars are open so that one can look out over the Nile valley as he goes. We whizzed by caravans of donkeys, loaded with all sorts of farm products, and by camels, ridden by gowned men, bobbing up and down in the saddles as they went. There were men, women, and children on foot, and veiled women on donkeys.

The cars were filled with Egyptians. Two dark-faced men in black gowns and white turbans sat on the seat beside me. In front was a yellow-skinned Arab dandy in a red fez and long gown, while just behind me sat a woman with a black veil fastened to her headdress by a brass spool. As we neared the Pyramids we stopped at a café where American drinks were sold, and a little farther on was a great modern hotel with telephones and electric lights.

When I previously visited Egypt, the sands about the

Pyramids were almost as smooth as those of the seashore. I galloped on my donkey over them and had no idea that I was tramping down innumerable graves.

But now—what changes the excavators and archæologists have made! In walking over the same ground to-day I had to pick my way in and out through a vast network of half-broken-down tombs, from which the sands had been shovelled, and climb across piles of sun-dried brick which were made by the Egyptians at the time old King Cheops reigned. In one place I saw a gang of half-naked, brown-skinned *fellaheen* shovelling the earth into the cars in which it is carried far out in the desert. When the work is in full play an endless chain of cars of sand moves across this cemetery. There is a double track with turntables at the ends, and the arrangements are such that the sand can be taken out at the rate of half a ton per minute. For a long time seventy-two men were employed, and the result is that some most interesting historical material has been collected.

Some of the most important archæological work now going on in Egypt is in the hands of the Americans. Our scientists are making explorations in Nubia, away up the Nile, and are opening up temples and tombs in the desert near Luxor. They have already discovered the burial places of several kings who reigned over four thousand years ago, and unearthed the tomb of Queen Hatshepsut, whose sarcophagus is now on view in the museum at Cairo.

Right here two American institutions have a large force of natives at work and have uncovered a cemetery under the shadow of the Pyramids of the time when the greatest of them was built. This cemetery includes the tombs not only of the rich, but also of the poor, and the relics, statues,

and other things found in it enable one to reconstruct the lives of those who were buried here forty centuries ago.

The excavations which are being made near the Great Pyramid are in the interest of Harvard College and the Boston Museum. They furnish the money and Dr. George Reisner, one of the most efficient archæologists of the day, has charge of the work. Dr. Reisner came to Egypt as the head of the Hearst Expedition. He worked for it several years, making valuable explorations far up the Nile. He discovered there the flint-working camps of the people of the prehistoric period, and he explored the quarries which date back to the time of the Ptolemies. He also unearthed the site of a large town which was in existence fifteen hundred years before Christ and excavated a mass of valuable material therefrom. He then came nearer Cairo and uncovered cemeteries of ancient times, which give us a new view of Egyptian civilization.

It was in connection with the Boston Museum that he began his work at the Pyramids. As it is now carried on, of the share which falls to the United States the museum gets the art discoveries, while Harvard receives everything found bearing upon history and ethnology. One half of all that is unearthed goes to the Egyptian government and the other half to the United States.

The story of the allotment of the archæological territory about the Pyramids is interesting. The Egyptian government was anxious to have the country excavated, and there were three nations ready to do the work. The three were Germany, Italy, and the United States. Archæologists came here as representatives from each of these countries and the whole of the Gizeh Pyramid field was turned over to them with the understanding that Egypt

was to have half of the discoveries. Then the question came up as to how the site should be divided. As it was then, it was a great area of sand not far from the banks of the Nile with the big Pyramid of Cheops and the smaller ones of Khefren and Mycerinus rising out of it, each being quite a distance apart from the others. Each nation wished to do independent work; so the archæologists finally agreed to divide the territory into three sections and cast lots for them. I am told that Mrs. Reisner held the straws. In the drawing, the United States got the tract just north of the Great Pyramid and Germany and Italy the tracts to the south of it. Our area was thought to be the best of all and Uncle Sam's luck has been nowhere better evidenced than right here. We are making more finds than both the other nations put together and are bringing new life to the pages of history.

I went out to the Pyramids to-day and called upon the chief of the American excavation works. I find he has built himself a home under the shadow of old Cheops. He is beyond the greatest of the Pyramids, with the sands reaching out for miles away on the north, south, and west of him. His house is built of stones which probably came from these ancient monuments. It is a long, one-story structure, not over twelve feet in height, but large enough to contain a laboratory, a photographic establishment, and the necessary equipment of an archæologist.

One part of it is the living quarters of Dr. Reisner and his family. He has his wife and baby with him, and as we chatted together his little daughter, a bright-eyed infant not more than a year or so old, played about our feet. The baby was born here on the edge of the Libyan Desert, and her youth and the age of old Cheops, that great tomb of

more than four thousand years ago, were striking in their contrast. As I looked at the little one I thought of the tombs of the babies which her father is now excavating.

During my stay we examined some photographs of the recent discoveries. One represented three statues of a well-to-do couple who lived here in those bygone ages. They were Teti and his wife. The faces were life-like and I doubt not that Mr. and Mrs. Teti sat for them.

There were other photographs of objects found in the cemetery of the rich, as well as of some found in the cemetery of the poor. The higher classes of that time were buried nearer the Pyramids, while beyond them, farther up the desert, were the burial places of the poor. Each poor person had a little coffin-like hole in the ground built round with stones. These holes were close together, making a great series of stone boxes that remind one of the compartments of an egg crate.

I took a donkey for my ride to the Great Pyramid of Cheops, and went clear around the huge mass, climbing again up the stones. As I sat on the top I could see the work going on in the sands below me, and I repeopled them with the men now being dug up under the superintendence of our Americans. In my mind's eye I could see them as they toiled. I could see them dragging the great blocks over the road of polished stone, which had been made for the purpose, and observe the sweat rolling down their dusty faces in this blazing sun of Egypt as, under the lashes of their taskmasters, the great pile grew.

Most of the great stone blocks of which the Pyramid was built weigh at least two tons, while some of the larger ones which cover the King's Chamber inside the structure weigh sixty tons. It is estimated that the Great Pyramid

contains nearly ninety million cubic feet of limestone. This is so much that if it could be split into flags four inches thick, it would furnish enough to make a pavement two feet wide reaching over sea and land clear around the globe.

When Cheops completed this great structure he faced the exterior with limestone and granite slabs. The sides were as smooth as glass and met in a point at the top. The length of each side was eighteen feet greater than it is now. Indeed, as the bright sun played upon its polished surface the Pyramid must have formed a magnificent sight.

As it is to-day, when one views it from afar, the Great Pyramid still looks like one smooth block of stone. It is only when he comes closer that he sees it is made of many blocks. The Pyramid is built of yellow limestone and conglomerate. The stones are piled one on the other in regular layers. There is no cement between them, but they are chinked with a rough mortar which has withstood the weather for all these ages. I dug at some of this mortar with my knife, but could not loosen it, and went from block to block along the great structure on the side facing the western desert, finding the mortar everywhere solid.

And this huge pile was built over forty centuries ago. It seems a long time, but when you figure out how many lives it means it is not so old after all. Every one of us knows one hundred men who have reached forty years. Their aggregate lives, if patched together, would go back to the beginning of this monument. In other words, if a man at forty should have a child and that child should live to be forty and then have a child, and the programme

of life should so continue, it would take only one hundred such generations to reach to the days when the breath from the garlic and onions eaten by those one hundred thousand men polluted this desert air.

Indeed, the world is not old, and it is not hard to realize that those people of the past had the same troubles, the same worries, and the same tastes as we have. I can take you through tombs not far from Cairo upon the walls of which are portrayed the life work of the men of ancient Egypt. You may see them using the same farm tools that the *fellaheen* use now. They plough, they reap, and thresh. They drink wine and gorge themselves with food. In one of the tombs I saw the picture of a woman milking a cow while her daughter held the calf back by the knees to prevent it from sucking. In another painting I saw the method of cooking, and in another observed those old Egyptians stuffing live geese with food to enlarge their livers. They were making *pâté de foie gras*, just as the Germans stuff geese for the same purpose to-day.

Leaving the Pyramid of Cheops, I crossed over to take a look at the other two which form the rest of the great trio of Gizeh, and I have since been up to the site of old Memphis, where are the Pyramids of Sakkarah, eleven in number. Along this plateau, running up the Nile, are to be found the remains of a large number of Pyramids. There are also some in the Faiyum, and others far up the river in ancient Ethiopia. The latter are taller in proportion to their bases than the Egyptian Pyramids, and they generally have a hall with sculptures facing the east to commemorate the dead.

Most of the stones of the Pyramids here came from the plateau upon which they stand or from the Mokattam

hills about twelve miles away on the other side of the Nile. There was an inclined plane leading to the river, on which are still to be seen the ruts in the stone road cut out by the runners of the sledges carrying these great blocks. There are pictures on some of the monuments which show how the stones were drawn on sledges by oxen and men. In one of the pictures a man is pouring oil on the roadbed. On the Island of Madeira, where the natives drag sleds by hand up and down the hills, they grease their sled runners, but the ancient Egyptians greased not only the runners but the roads as well.

I was much interested in the interior of the Great Pyramid. The mighty structure is supposed to be solid, with the exception of three chambers, connected with the outside by passageways and ventilated by air-shafts. These chambers undoubtedly once contained great treasures of gold and silver, but they were robbed in the first instance over three thousand years ago and it is known that the Persians, the Romans, and the Arabs all tried to dig into them to find the valuables they were supposed to hold.

It was with three half-naked Bedouins that I climbed up to the entrance which leads into old Cheops. There is a hole about forty-five feet above the desert on the north side. Going in here, we came into a narrow stone passage so low that I had to crawl on my hands and knees. The passage first sloped downward and then up, and finally, pushed and pulled by my dark guides, I got into a great narrow hall. After passing through this, I entered again the room where old Cheops, the king, rested undisturbed for a thousand years or so before the looters came.

By going back through the hall one reaches another passageway which slopes downward to the Queen's

The Alabaster Sphinx is one of the evidences of splendour of the ancient city of Memphis, seat of kings, with streets so long that to walk from end to end was said to be half a day's journey.

Inside the great museum at Cairo are the mummies of Egyptian royalty, which, with countless relics and records and the new discoveries of the archæologists, reveal in intimate detail the life of these people of thousands of years ago.

Chamber. Below this, reached by another passage connecting with that I first entered, there is a subterranean chamber far under the base of the Pyramid itself. The whole structure is intensely interesting, and if it could be explored by diamond drills or in some other way, other chambers might possibly be found in the parts now looked upon as solid.

CHAPTER XII

FACE TO FACE WITH THE PHARAOHS

HOW would you like to own an Egyptian mummy princess, perhaps two thousand years old? On my second visit to Egypt I was offered one at the museum. The price was just one hundred dollars in cash, and accompanying it was a certificate showing that it had not been made in Germany. The excavations going on in the valley of the Nile had unearthed so many relics that the museum at Cairo had mummies and other antiques to sell. Hundreds of the ancient dead were being shipped to all parts of the world, and the ghoul-like officials added to their revenues by disposing of the surplus bodies of nobles who lived and ruled ages ago. The lady who was offered to me, with the usual accompaniment of a certificate of age, lay in the clothes in which she was buried. She was wrapped around with linen as yellow as saffron and her black face appeared to smile as I looked at her. She had been put up in spices, and I could almost smell the perfumes with which she was embalmed.

There is no place like this Museum of Cairo in which to study the Egypt of the past. Room after room is walled with the coffins of monarchs who reigned thousands of years ago, and in other caskets the bodies embalmed are exposed to view. I looked a long time upon the face of King Rameses who is supposed to have gone to school

with Moses. The king who built Thebes, Karnak, and other great cities, was the man who oppressed the Israelites, although not the one whom the Lord afflicted with plagues thereby causing the Exodus. He was the Alexander of Egypt, the Napoleon of the Nile valley three thousand odd years ago. He conquered the countries about him and was rolling in wealth." . . . now lies he there, And none so poor to do him reverence."

Rameses is remarkably well preserved. His iron jaw is as firm as when he uttered commands in his capital, the hundred-gated city of Thebes. His enormous nose is still prominent. The face, though black, is wonderfully life-like and the teeth shine out as white as when he brushed them after his morning tub, something like four thousand years ago. I noted the silky, fuzzy hair over his black ears and longed for a lock of it for my collection of relics.

Then I looked up and saw a great curled wig of black hair which the records state was made for King Rameses, and wondered why the spiced old gentleman below did not match his wig to his natural flaxen hair.

Near this casket is one containing Seti I, the Pharaoh who preceded Rameses, another great warrior and conqueror, who is said to have made a canal from the Nile to the Red Sea. Not so far away is the mummy of Meneptah, the tyrant who hardened his heart against the Israelites and would not let them go. Seti lies in his coffin with his black arms crossed and his black head cushioned on yellow grave clothes. His features are as peaceful as perhaps they seldom were in life and he appears to sleep well.

The dead past became marvellously real when I looked at another box in which lay a mummied princess with the

body of her tiny baby, not many days old, in the coffin beside her, and when I saw gold bracelets of the same patterns that our belles wear to-day and earrings quite as beautiful as those made by Tiffany, I felt that human nature was the same six thousand years ago as it is now, and that these people of the past had the loves and hates, the cares and the vanities of the world of to-day. I wondered what Rameses took for the colic and whether Queen Akhotupu, who lived before Moses, and who now lies here, had hysterics. I noted the flowers which were put in another mummy case beside a king and I could not reconcile the beautiful teeth and the fine intellectual face of King Seti, whose daughter is supposed to have found Moses in the bulrushes, with the fat, bloated fingers, showing that he had the gout. There was as good living in the days of the Israelites as there is in Egypt to-day, but then as now, only the rich had fancy cooks and the poor ate scraps. In the tomb of Ti near Memphis I saw in chambers of granite down under the sands of the desert, wall after wall covered with painted pictures of the life of the time when the tomb was made thousands of years before Christ.

I saw the body of a princess standing upright against the side of the wall. Her face was plated with gold, and the mummy cloths which wrapped her round and round were embroidered. One might make a similar bundle of any modern girl. Another of these ladies had hair which appeared to have been done up in curl papers, and its colour was as red as my own.

Many of the mummy caskets are splendid. They are made of fine woods, painted inside and out with pictures describing the life of the occupants. Some are covered

with carvings and some with heads which may have been likenesses of those who lay within.

It costs much to die now. It must have cost more then. The expense of making a first-class mummy was twelve hundred dollars, and the money of that day was worth ten times what it is now. The caskets, which were more expensive than any of the coffins we have to-day, were incased in great sarcophagi of stone or wood, a single one of which must have cost a fortune.

I have asked the archæologists why the Egyptians made their mummies. Their reply is that the desire for mummification came from the religion of the ancient Egyptians, who believed in the transmigration of souls. They thought that the spirit wandered about for several thousand years after death and then came back to the home it had upon earth. For this reason it was desirable to keep the body intact, for every one looked to his mummihood as his only chance of re-creation hereafter.

When the art of embalming began no one knows, but it certainly dates back to the building of the Pyramids. We know that when Jacob died in Egypt, his son Joseph had him embalmed and the Bible says it took forty days to do the job properly. It also relates that when Joseph died the Egyptians embalmed him and put him away in a coffin. Herodotus, who was one of the best travel writers of all times, describes how embalming was done and tells the details of mummy-making. He says the art was carried on by a special guild, whose members were appointed by the government and who had to work at fixed prices. The bodies were mummified in three different ways. By the first and most costly method, the brains were extracted through the nose by means of an iron probe, and the

intestines were taken out through an incision made in the side. The intestines were cleaned and washed in palm wine, covered with aromatic gum, and set aside in jars. The cavity of the body was next filled with spices, including myrrh, cassia, and other fragrant substances, and it was then sewn up. After this it was soaked in a solution of natron, a kind of carbonate of soda, being allowed to lie in it for a couple of months or more. When it had been taken out and wrapped in fine linen so smeared over with gum that it stuck to the skin, the mummy was ready for burial.

The second process, though cheaper, took about the same time. In this the brains were not extracted and the body was so treated in a solution that everything except the skin and bones was dissolved. There was a third process which consisted of cleaning the corpse and laying it down in salt for seventy days. The first process cost about twelve hundred dollars; the second, one hundred dollars; and the third, considerably less.

Other authorities describe different methods of mummification. Most of the mummies discovered, however, have been preserved by means of gums of some kind and by pitch and carbonate of soda. The mummies prepared with gums are usually green in colour with skins which look as though they were tanned. They often break when they are unrolled. The bodies preserved with pitch are black and hard, but the features are intact, and it is said that such mummies will last forever. In those treated with soda the skin is hard and rather loose, and the hair falls off when it is touched. The pitch mummy ordinarily keeps its hair and teeth.

There are mummies of children in this Egyptian

museum. There are some also in London, but I know of none anywhere else. The children were embalmed for the same reason as the grown-ups, the parents believing that they could have no union with their little ones unless they met them in their original bodies after the resurrection. The faces on some of these are gilded, while the pictures on the bandages represent the children offering sacrifices to the gods. Above the feet is sometimes seen the funeral boat, showing the little child lying upon its bier, and upon other parts of the coffin are tiny people who seem to be engaged in propelling the boat. This probably represents the ferry of the dead to their tombs in the mountains on the banks of the Nile. In other cases the caskets of the children are beautifully decorated and some are even plated with gold.

I mused long over two statues as old as any in the world. These are life-size sitting figures, representing Prince Ra-Hotep and his wife, the Princess Nefert, who lived something like four thousand years before Christ, and whose statues are as perfect now as when they were made, before the Pyramids were built. The Prince has African features, and his light attire reminds one of the inhabitants of the valley of the Congo. The Princess is dressed in a sheet, and looks as though she were just out of her bath. Her husband evidently cut her hair, and it takes considerable imagination to believe that she can be so old and still look so young. There is no doubt of her age, however, for the scientists say that she has seen over six thousand years, and the scientists know.

One of the most important records of the customs and beliefs of the Pharaohs concerning the dead has been taken away from Egypt. This is a papyrus manuscript which

is now in the British Museum. It is known as the Book of the Dead and contains two hundred chapters. It is written in hieroglyphics, but many of the passages have been translated. It sets forth that every man was believed to consist of seven different parts of which the actual body was only one and the other parts related to the soul and its transmigration. Upon the preservation of the body depended the bringing together of these seven parts in the after life. On this account corpses were mummified, and for the same reason they were hidden away in tombs under the desert and in the great Pyramids, which their owners believed would be inaccessible to the men of the future.

This Book of the Dead contains, also, some of the Egyptian ideals of right living, reminding one of the Psalm which, in Rouse's version, begins:

That man hath perfect blessedness
  Who walketh not astray
In counsel of ungodly men,
  Nor stands in sinner's way.
Nor sitteth in the scorner's chair,
  But placeth his delight
Upon God's law, and meditates
  On that law day and night.

The Book of the Dead reads:

I am not a plunderer; nor a niggard; nor the cause of others' tears. I am not unchaste; nor hot in speech. I am not fraudulent. I do not take away the cakes of a child, or profane the gods of my locality.

There is no doubt that the Egyptians believed in the immortality of the soul. They thought man would live again, and gave the soul the name of Bai, representing it in the form of a human-headed hawk. They had their

Some of the boys at the Asyut college bring enough bread baked in big, hard cakes to last several months. When they go in to their meals they take this bread along with them, softening it in buckets of water furnished for the purpose.

The American College founded at Asyut by the Presbyterians has become an important training school for young Egypt. Many of its graduates go into government service as well as business and professional life.

Boys from all parts and classes of Egypt, Moslems and Christian Copts, come by the hundreds to the American College, most of them paying for their tuition, some in cash and some in work.

own ideas of heaven which one of their pictures of the future state represents as follows:

> In heaven the dead eat bread which never grows stale and drink wine which is never musty. They wear white apparel and sit upon thrones among the gods, who cluster around the tree of life near the lake in the field of peace. They wear the crowns which the gods give them, and no evil being or thing has any power to harm them in their new abode, where they will live with God forever.

According to one opinion, the Egyptian heaven was situated above the sky. It was separated from the earth by a great iron plate, to which lamps were fastened, these lamps being the stars. According to another theory, the heaven was in the delta, or in one of the oases. The sky was thought to be a cow, Hathor, whose four feet stood firm upon the soil; or else a vast face, in which the right eye was the sun and the left eye the moon. Some thought that the sky was the goddess Nut, whom the god of the atmosphere, Show, held aloof from her husband Keb, the earth, on whose back grew the plants and trees.

The ancient Egyptian idea of creation was that it began with the rising of the sun, which was brought about by a god, and men and women came from the tears which dropped from the eyes of that god. This is somewhat better than the old Chinese tradition of the world's making. According to the latter, the god Pwanku chiselled out the universe, putting eighteen thousand years on the job. At the end of that time he died, and his head turned into mountains, his breath became the wind, and his voice the thunder. From his flesh came the fields, from his beard the stars, and from his skin and hair the trees. All minerals originated from his teeth and bones. The rain is his

sweat, and, lastly, man was created from the insects that stuck to his body!

In examining these gods of the ancient Egyptians as shown in the relics from the tombs, it is easy to see where the Israelites got their ideas of the golden calf. The oppressors from whom they were fleeing revered certain animals. They looked upon hawks as emblems of the sun, moon, and stars, and at their death often turned them to mummies. The cat was sacred to one of their gods. They had also statues of cows, the cow being considered emblematic of Hathor, the goddess of beauty, love, and joy. You may see her statues scattered up and down the Nile valley. Sometimes she is depicted as a cow and at others as a woman wearing cow horns with the sun hung between them. There is a carving of Queen Cleopatra decked out in that way.

But the jewels of which the Israelites made that calf! If you will look up the Bible record in Exodus you will see that Moses advised the Israelites that every man should borrow of his Egyptian neighbour jewels of silver and jewels of gold. A little farther on it is stated that they did so, the paragraph concluding as follows:

> And the Lord gave the people favour in the sight of the Egyptians, so that they lent unto them. And they spoiled the Egyptians.

In the museums here in Cairo you may see pints and quarts of jewellery such as the Israelites borrowed and took with them into the wilderness to melt down to make that golden calf. The place is filled with great cases containing ornaments of gold and silver taken from the tombs. Some date back almost to the early days of the Pyramids, and

many were in use before the Israelites left Egypt. Some are golden snakes with spring coils so that they will fit any arm; others are solid rings of massive gold. I saw armlets to be worn above the elbow, golden girdles for the waist, and a chain of gold with a goose head at each end. Among the finest of these ornaments are those owned by a queen who lived 600 B. C. and whose mummy came from a tomb not far from Thebes.

CHAPTER XIII

THE AMERICAN COLLEGE AT ASYUT

AT ASYUT up the Nile valley about as far south of the Mediterranean as Washington is south of Buffalo, the United Presbyterians of the United States have established a training college for young Egyptians which is doing a wonderful work. I came from Cairo to see it, winding my way in and out along the great river. The valley is narrow above Cairo, being only from three to nine miles in width, so that from the railroad I could see the yellow sand on both sides of the green, watered strip. We were sometimes far out in the desert, and sometimes moving in and out of the irrigated lands. We passed mud villages which border the river and the larger canals. The date trees hanging over them were loaded with honey-coloured fruit. Upper Egypt has vast numbers of dates. There are in the whole country something like eight million of these palms, which, at a rough estimate, bring in one dollar annually for every tree.

Asyut is the largest city in Egypt south of Cairo. It is the capital of this part of the Nile valley and the chief centre of its commerce and trade. Before the railroad was built, caravans from the Sudan brought great quantities of merchandise from Central Africa to Asyut and transferred it to other camel trains bound for Tripoli, Cairo, or Suez. The railroad now carries this trade, and the iron tracks

have been extended southward beyond the city of Khartum. The gap in the railroad between Shellal and Wady Halfa is filled by steamers on the river.

Asyut itself has many good buildings. Not far from the railroad station are brick houses of two and three stories which would be considered fine anywhere. They are owned by Copts, who started life poor and have become millionaires. Most of the houses of the city are Egyptian in character, flat-roofed buildings of one, two, and three stories, facing the street. Many of them are new and substantially built. The bazaars are far better than when first I visited Asyut, and the town, which has now over fifty thousand people, is double the size it was then.

The Asyut Training College is a missionary institution, but it gives a good general education. It is run upon broad lines and has among its students Mohammedans, Copts, and other Christians. This is about the only one of our Protestant denominations that is working here, the other sects having apparently given up Egypt to it. This Church has mission stations scattered throughout the Nile valley, and schools not only in Lower and Upper Egypt but also in the Sudan, and even on the borders of Abyssinia. There are more than fifteen thousand boys now being taught in its various institutions. It is surprising that a large part of the money that the mission is spending upon education comes from the natives themselves. In one year over one hundred thousand dollars was spent, of which almost eighty thousand was subscribed by the Egyptians. Of the fifteen thousand in the schools, more than thirteen thousand are paying for tuition, so that the institutions are largely self-supporting. The Egyp-

tians of to-day have learned the value of modern school training and are anxious to have their sons go to college. They want them taught English and are willing to pay something in order that they may get a good education.

I went through the college with its president, John Alexander, D.D., who has been in charge for almost a generation. To him it is largely due that it is the most successful institution of its kind in northern Africa. Dr. Alexander is by birth an Ohioan. He was educated at Wooster University and shortly after he left there he came to Egypt. He has lived here ever since and he knows the people and their wants as well as any man. He says that the natives are thoroughly alive to the advantages of modern education and that they could use more schools and better facilities than either the government or the mission can supply. He tells me that he has to refuse many applications for entrance to the training school for lack of room and that the college stands ready to erect new buildings as soon as it can raise the money. It has already bought twenty acres of land at the junction of the Nile and the great irrigating canal which runs from here to the Faiyum, and it now needs only an appropriation for additional buildings. My examination shows me that the institution is ably and economically managed, and I know of no place where any one of our rich men can better invest his surplus and have it pay big dividends in a charitable way than right here.

This college is conducted on the dormitory plan. The majority of its students live in the buildings and are continually under the eyes of their professors. The training partakes somewhat of a military character. The boys

not only go to classrooms, but they have to attend chapel, weekly prayer meeting, and Sunday-school. They are also compelled to take part in college athletics. Twice a week they must engage in football and tennis and every effort is made to develop them as our boys are being developed. They study well and do good work on track and football field.

I should like to show you these Egyptian boys as I saw them to-day. There were seven hundred and thirty of them in the campus when I went through—bright-eyed, dark-faced young fellows, ranging in age from ten to twenty years and coming from every class of Egyptian life. Some were Mohammedans, the fatalistic, sober followers of the Prophet; others were Copts, having the bronze faces, the high cheekbones, and the black eyes which mark them as the descendants of those who oppressed the Israelites when Pharaoh ruled. All the students wear red fezzes that extend about eight inches above their heads and are kept on both in classroom and chapel. They wear long gowns, often belted in at the waist, and look more dignified than the college boy of America.

The students are of all classes and conditions. Many are working their way through school. There are three scales of expense, graduated according to the tables at which the boys eat. One class has a table where all have knives and forks and the food furnished is as good and as varied as can be found anywhere. This is for the rich, who can pay as much as one hundred dollars a year for room and board. The second table is filled by students who can afford to pay only fifty dollars a year, and the third by those who cannot spare more than

thirty-five dollars a year. Of the students of the first class only two or three live in one room, and of the second from four to eight, while those of the third are lodged in large rooms accommodating twenty or thirty, each of whom has his own bed, which he furnishes himself.

The boys of the second class have simpler food than those of the first and eat with their fingers in native style. Those of the third class have still cheaper food, but in all cases it is as good as or better than the boys get at home, for here they have wheat bread and meat at least once a week.

A pupil must pay a minimum fee of one dollar a session in money, but as far as is possible he may work out the rest of his expenses. The average tuition is only ten dollars a year.

This big American college is doing so much good for Egypt that it is commended by the government and by every tourist who learns anything of Egyptian affairs. It was founded in 1865 and its first work was done in a donkey stable with five students. Dr. Hogg, a Scotch missionary, then constituted the entire faculty. It has now seven large buildings, which cover two acres, built around a campus shaded by date palms, and among its professors are graduates from the best of our colleges, including men from Princeton and Yale. It has not far from one thousand students, who come from all parts of Egypt and even from the Sudan and the other countries of northern Africa. These youths represent more than one hundred towns throughout the Nile valley and the graduates are scattered all over Egypt. Many of them are influential business men; some are lawyers, doctors, and teachers, and others are government officials.

From Asyut come the famous metal shawls of silver or gold on black or white. The bazaar is over a mile long, and before the days of railroads was the trading place of caravan merchants from the south and buyers from the north.

The Egyptian complained that under British rule not enough of his tax money was spent on native schools. Only twelve per cent of the men and less than two per cent of the women can read and write.

The graduates of the school are anxiously sought by the government as clerks. Their training is considered better than that of the Mohammedan colleges, where little except the Koranic law is taught, and they are found to be trustworthy and of high moral character.

CHAPTER XIV

THE CHRISTIAN COPTS

MANY of the students of the Asyut Training College are Copts. They belong to that class of natives who are said to be the only direct descendants of the ancient Egyptians. The Copts are more intelligent than the Mohammedans. They take naturally to education, and about four Copts go to school to every one Moslem. They are also shrewd clerks and, many of them being educated men, they have a large number of the minor government appointments. The British, however, tried to be partial to the Mohammedans because they form the great majority of the population, and to give them offices in preference to the Copts. During Lord Cromer's administration, a committee of Copts objected to his crowding out these native Christians and giving their places to the followers of the Prophet. Applicants for any government posts or for training schools have to give their names, and the Copts can thus be easily distinguished from the Mohammedans. The Christian boys get their names from the characters of the Bible, while the names of the Mohammedan boys come from the Koran. When the examination papers were turned in, the judges were said to have been instructed to mark down all those bearing such names as Moses and Jacob, Peter and Paul, and to recommend for appointment the Mohammeds, the Alis, and the Has-

sans. The British governing class considered that the Copt and the Mussulman, being alike natives, were generally not capable of holding any responsible position. And now it is said also that it would be bad policy to put the Christian Egyptian over the Moslem.

The Copts are the sharpest business men of Egypt. It is a common saying here that no Jew can compete with them and they have driven the Jews out of the upper part of the Nile valley. In Asyut there are a number of rich Copts who have become Protestant Christians, and some of these men are very charitable. One, for instance, built a Protestant native church, after a visit to England, where he was much impressed by Westminster Abbey. Upon his return he said he was going to build a church for Asyut on the plan of Westminster. The missionaries advised him to make his building rectangular instead. But no! it must be Westminster Abbey or nothing; and the result is a great T-shaped structure of wood with a long hall in the centre and wings at the end. The church cost about twenty thousand dollars and will seat one thousand five hundred people. I attended it last Sunday and found the main hall filled with dark-faced men in gowns and fezzes. The wings were shut off by curtains, but I was seated in front and so near one side that I could look through the cracks. Each wing was filled with women clad in black balloon-like garments and veiled so as to conceal all but their eyes. Yet a few women wore European clothes and French hats, showing how the new civilization is coming in.

Another rich Copt established two large primary schools at Asyut, one for boys and the other for girls. In the boys' school there are five hundred and fifty pupils,

and in that for the girls more than two hundred. These schools are taught by native Protestants, and not one cent of American money is spent upon them.

I am much interested in the Copts. There are about eight hundred and fifty thousand of them in the country. They look very much like the Egyptians and dress in about the same fashion. The women veil their faces, both in public and private, and until about a generation ago the unmarried women wore white veils.

These people believe in the ancient form of Christianity. They are indeed the same Christians that Egypt had in Roman times. They claim St. Mark as their first patriarch and say that he preached the Gospel at Alexandria and started the sect there. They have a patriarch to-day, with twelve bishops and a large number of priests and deacons under him. They have their monks and nuns, who lead rigorous lives; they fast and pray, wear shirts of rough wool, and live upon vegetables.

The Copts believe in God the Father, and in the Lord Jesus Christ as his Son. They believe in prayer, and like the Mohammedans, pray five or six times a day. They begin their devotions at daybreak and are supposed to make five separate petitions before dark and to close with a final prayer at midnight. As they pray they recite a Psalm or chapter from the Gospel, and some have rosaries of beads on which they count forty-one times, saying the words:

"Oh! my Lord, have mercy."

After this they end with a short petition. They wash before praying, and worship with their faces turned toward the east. They believe in baptism and think that an unbaptized child will be blind in the next life. They have

fixed times for baptism, a boy baby being baptized at forty days and a girl baby at eighty days after birth.

There are Coptic churches all over Egypt, and I find several here at Asyut. The church usually consists of four or five buildings surrounding a court, and includes a chapel, a hall of worship, the residence of the bishop, and other rooms. The sanctuary proper contains an altar separated from the rest of the rooms by a screen, covered by a curtain with a cross worked upon it. Before this curtain stand the priest, the choir and the more influential members of the congregation. Beyond them is a lattice work, on the other side of which are the less important men, with the women in the rear. Everyone is expected to take off his shoes when he comes in, and in many of the halls of worship, as there are no seats, the people lean upon sticks while the sermon is preached. The service begins at daybreak and often lasts four or five hours, so that it is no wonder that some of the members of the congregation fall to chatting during the preaching, and discuss business and social matters.

I am told that the Copts do not trust their wives any too much. Each has but one, but he does not make her his confidante, never tells her his business secrets, and pays her much less respect than the native Protestant Christians show their wives. He seldom sees his wife until he is married and is forbidden by his religion to marry any one but a Copt. As among the Mohammedans, marriages are usually a matter of business, with a dowry bargained for beforehand. The favourite wedding time is Saturday night, and the marriage feasts last through the following week. When the marriage contract is made all the parties to it say the Lord's Prayer three times. Before the

ceremonies are completed the bride and the bridegroom go separately to church where the Eucharist is administered to them. Just before her marriage, the bride is given a steam bath, and her finger nails and toe nails are stained red with henna. Immediately before the ceremony she sends the groom a suit of clothing, and a woman from her house goes to him to see that it is delivered properly and that he is taken to the bath. This provision ensures that both start the married life comparatively clean.

CHAPTER XV

OLD THEBES AND THE VALLEY OF THE KINGS

ALL day long I have been wandering about through the tombs of the kings who ruled Egypt three or four thousand years ago. I have gone into the subterranean chambers which the Pharaohs dug out of the solid rocks for their burial vaults, and I have visited the tombs of kings older than they. The last resting places of more than fifty of these monarchs of early Egypt have been discovered, and the work is still going on.

Some of the best work of excavation all along the Nile valley is being done by Americans. While at Cairo I found the money of Harvard College and the Boston Museum uncovering the cemeteries of the nabobs and paupers who were buried at the time of King Cheops under the shadow of the Great Pyramid of Gizeh. The Egyptian Exploration Fund, which is supported by Great Britain, Canada, and the United States, has a small army of workmen operating near Luxor, the University of Pennsylvania has made important discoveries, and a large part of the uncovering of the valley in which these royal tombs lie has been done by the Americans.

The Egyptologists of the Metropolitan Museum in New York and Lord Carnarvon of England are responsible for some of the most remarkable finds of this generation. During my trip of to-day I met a young archæologist, in charge of the American operations, who showed me through

the tombs of the kings and explained the symbols and pictures on the walls. I went to that part of the valley where the excavation is now going on and took pictures of a gang of one hundred and fifty Egyptian men and boys who are working there.

Let me describe the place that the ancient Egyptian monarchs selected for their burials, the Valley of the Kings. They wanted to hide their remains so that posterity could never find them, and to cover them so that future generations would have no idea that they and their treasures lay beneath. Our cemeteries are chosen for the beauty of their surroundings. We like to turn up our toes to the daisies and to have leafy trees whisper a requiem over our heads. The old Egyptian kings wanted to lie under the sterile desert waste and chose a region about as far up the Nile valley as Cleveland is inland from the Atlantic, and fully six miles back from the fertile strip on which their people lived. I can imagine no place more dreary. At this point the Nile is walled on the west by limestone mountains. As far as the moisture reaches, the valley is the greenest of green, but beyond lies a desert as brown as any part of the Sahara. There is not a blade of grass, nor a sprig of vegetation of any kind. There is nothing but sand and arid mountains, the latter almost as ragged in outline as the wildest parts of the Rockies. Some of their stony sides are built up in great precipices while in other places there are fort-like bluffs and similar convulsions of nature.

To visit this valley one first comes to Luxor, which is very nearly on the site of Old Thebes, the capital of Egypt in the days of its most brilliant past. The ancient city lay on both sides of the Nile, but Luxor is on the east bank.

Rameses II, the greatest egoist of Egyptian history, covered his dominions with his monuments and inscriptions. Standing against the colossal leg of this statue is the figure of his sister, Nefertari, who was also his favourite wife.

Hatshepsut, the Queen Elizabeth of Egypt, reserved for herself the best space in the splendid temple-tomb at Deir-el-Bahari, tucking away in small quarters the bodies of her male relatives. A brother later retaliated by removing her name from the inscriptions.

Every great temple in ancient Egypt had its sacred lake, where the worshippers performed their ablutions and the religious processions of boats took place. The banks of this lake at Karnak were originally lined with smooth-cut stone.

Crossing the river in a ferry boat, I rode for an hour or more through the desert before I came into the Valley of the Kings. My donkey boy was a good one and his donkeys were young. His name was Joseph, and the brute I bestrode was called "Gingerbread."

We traversed green fields, winding in and out along the canals, until we came to the desert and entered a gorge walled with rocks of yellow limestone and a conglomerate mixture of flint and limestone of curious formation. The gorge shows evidences of having been cut out by some mighty stream of the past. There are masses of débris along the sides, and the way is rough except on the road which has been made by the explorers.

Looking at the valley from the Nile one would not suppose it to be anything other than a desert ravine, so I did not at first realize that it was a cemetery. There are neither gravestones nor monuments, for the kings obliterated every sign that might indicate their burial places. They dug out great chambers under the bed of this dried-up river and built cisterns for their proper drainage, but when they had finished they did all they could to make the spot look as it was in nature. For this reason their tombs remained for ages untouched and unknown.

From time to time, however, one or another was discovered. Strabo, the Greek geographer, who was alive when Christ was born, speaks of forty of them as being worthy of a visit, and others are mentioned by subsequent writers. Later they were again lost, and not until in our generation when some Arabs began to sell curious antiquities was it learned that the tombs had been rediscovered and were being rifled by these vandals. The archæologists then went to work on their explorationswhich resulted

in the opening up of tomb after tomb, until we now have what might almost be called a subterranean city of the dead in the heart of the desert.

The tombs are nothing like our burial vaults. They are large rooms cut out of the solid rock, with walls straight and smooth. They are reached by many steps, going down inclined planes until they bring one far below the surface of the valley and deep under the mountains. Each king had his own tomb, which he decorated with sketches and paintings representing the life of his time and the achievements of his reign. The ceilings are beautiful. From some of them the figures of gods and goddesses look down upon us. Others are decorated with geometric designs in beautiful colours. In some, men and women are carved in bas-relief out of the solid rock and then coloured. Many of the scenes are religious, so that from them the Egyptologist is able to learn what the people of that day believed. The carvings show, too, how they lived when our remotest ancestors were savages in the wilds of Europe and Asia.

The Americans have had remarkably good luck in their finds. One of them was the tomb of the parents of Queen Tiy in which all the objects were in as good condition as if they had been in a house just closed for the summer. There were armchairs beautifully carved and decorated with gold. The cushion on one of them was stuffed with down and covered with linen perfectly preserved. In another part of the chamber were two beds decorated with gold, while a light chariot stood in a corner. But most wonderful of all was the discovery in this tomb of a jar of honey, still liquid and still fragrant after thirty-three hundred years.

In some of the tombs I saw the massive stone boxes in which lay the mummies of the dead kings. I measured one ten feet long, six feet wide, and eight feet high. It was hollowed out of a block of granite, and would weigh many tons. That mighty burial casket was cut out of the quarries of Aswan far above here, on the banks of the Nile. It must have been brought down the river on a barge and carried to this place. When it was finally on the ground it had to be lowered into the vault. All these feats were done without modern machinery. As I went through the tombs I saw several such caskets, and the archæologist who guided me showed me the holes in the stone walls of the entrance ways where beams had been put across in order that ropes might be used to prevent these stone masses from sliding too far when let down. It is a difficult job for us to handle safes. One of these stone boxes would weigh as much as several safes, yet the old Egyptians moved them about as they pleased.

Indeed, I venture to say that the civil engineers of the Pharaohs could teach us much. All through this region there are enormous monuments which it would puzzle the engineers of to-day to handle. For instance, there are the Colossi of Memnon, the two mammoth stone statues that sit upon pedestals in the Nile valley within a few miles of where I am writing. Each is as high as a six-story building, and the stone pedestals rise thirteen feet above the ground. As I rode by them on my way home from the Valley of the Kings I climbed up and ran a tape measure over their legs. Each leg is nineteen feet from sole to knee. The feet are each over three yards in length, so long that one would fill the box of a farm wagon from end to end, and so wide that it could hardly be fitted within it.

Each arm from finger tips to elbow measures five yards, and the middle finger of each hand is a yard and a half long. As I stood beside the pedestal, with my feet on Gingerbread's saddle, I could not reach the top.

These two colossal figures sit side by side on the edge of the Nile valley with the desert mountains at their backs. They were set up in honour of an Egyptian king who lived more than thirty-five centuries ago. The temple he constructed behind them has now entirely disappeared. The statues overlook green fields, and as I gazed at the giant shapes I thought how they had watched the people sowing and reaping through all these centuries.

Not far from these monuments are the ruins of the temple of Rameses II, according to some authorities the Pharaoh who "would not let the people go." Among them I saw the remains of a statue of that old king, once part of a structure at least sixty feet high. There is no granite nearer here than in the quarries of Aswan, so this mighty monument must have been cut there and brought down the Nile to Thebes, a distance of one hundred and thirty-five miles.

Consider the obelisks which the Egyptians made at those quarries and carried down the Nile to Thebes, to Cairo, and to Alexandria. There are two of them still at this place. You may see them in the great Temple of Karnak, which is not more than a twenty-minute walk from Luxor. They weigh something like four hundred tons each, and if they were broken up and loaded upon wagons it would take one thousand six hundred horses to haul them. Each is a single block of granite, and each was carried in that shape to this place. There are inscriptions on the Deir-el-Bahari Temple here which show that these two shafts were dug out of the quarries, covered

with hieroglyphic carvings, brought here, and put up all in the space of seven months. I doubt whether our engineers could do such a job as quickly or as well.

We thought it a wonderful work to bring the Alexandria obelisk from Egypt to New York in the hold of a steamer. To load it a hole had to be cut in the bow of the vessel and the pillar dragged through. The Egyptian obelisk at Paris was carried across the Mediterranean on a barge, while that which now stands in London was taken there in an iron watertight cylinder which was shipped to Alexandria in pieces and built around the column as it lay upon the shore. When the great stone was thoroughly encased, the whole was rolled into the sea and thus towed to London. After the huge monoliths were landed, the modern engineers had great trouble to get them where they wanted them. The New York obelisk was rolled along upon iron balls running in iron grooves laid down for the purpose, while that of London was hauled over greased ways to the place where it now stands on the banks of the Thames.

The oldest temple of Egypt by five hundred years was unearthed here by the agents of the Egyptian Exploration Fund. This lies near the famous temple of Deir-el-Bahari, and in a valley which is a branch of that of the tombs of the kings. When I visited it to-day the excavators were at work, and the men in charge told me they had great hopes of making valuable discoveries. It was with the American representative of the Exploration Fund, that I went over the temple. I met him at the little one-story house which forms the laboratory and home of the foreign explorers, and had a chat with the other members as to the progress of the work. A number of specialists from Canada, England,

and the United States, supported by the fund, are superintending the Egyptians, who do the hard labour. They have quite an army of men at work and have been successful. Of what they find one half goes to the museum at Cairo and the rest to the countries which subscribe to the fund in proportion to the amount of their subscriptions. The chief money from America has come from Boston, New York, Baltimore, and Washington, so that our share of what is now being unearthed will go to the museums of those cities.

More famous than this ancient temple itself is its shrine of the cow goddess, Hathor, from which the noted statue was excavated by the Egyptian Exploration Fund and taken to Cairo. I saw the place whence it came and talked to the men who dug it out of the earth. The statue, which is life-sized, is a perfect likeness of a beautiful cow carved out of stone. It is reddish-brown in colour, with spots shaped like a four-leaved clover. Traces still remain of the gold that once covered the head, neck, and horns. The head is crowned with lotus flowers and lotus stalks hang down each side the neck almost to the ground. Beneath the head stands the dead king whom Hathor protects, while the living king, whom she nourishes, kneels beneath her form. That image was probably worshipped at the time the Israelites were working in the valley of the Nile, and it may have been after one like her that they modelled their calf of gold.

Near the site of this oldest temple are the ruins of the great temple of Hatshepsut, the Queen Elizabeth of Egypt, who ruled fifteen hundred years before Christ was born. Her epitaph says that "Egypt was made to labour with bowed head for her." The temple is really a tomb-

chapel in memory of the royalties buried there—her father, her two brothers, and herself. Hatshepsut took most of the space, however, and put the bodies of her male relatives into as small quarters as she could. She called her temple "most splendid of all" and covered its walls with engravings and paintings showing her principal acts. Hers is a long record of kingly deeds. She discarded the dress of a woman, wore the crown, attached an artificial beard to her chin, and let it be known that she liked to be addressed as *His* Majesty by her courtiers and subjects. The New Woman is apparently as old as civilization itself!

It was the work of Americans, again, that unearthed here the tomb of the first great pacifist, Pharaoh Akhnaton, who reigned from 1375 to 1358 B. C. When he came to the throne Egypt, in the height of her power, was mistress of the chief parts of the civilized world. But the country was then ridden by the priesthood of Amon with its hosts of gods and its degraded worship. According to the inscriptions which have been deciphered young Akhnaton defied the priests of Amon and declared his belief in one God, a "tender and merciful Father and Mother of all that He had made," the "Lord of Love," the "Comforter of them that weep." It is thought that he was the Pharaoh in Egypt when the Children of Israel came into the land and that the One Hundred and Fourth Psalm in our Bible was written by him. He did not believe that warfare or military conquests were consistent with his creed and when revolts broke out in his Syrian provinces he refused to fight, though his soldiers tried desperately hard to hold the different people of his empire faithful to their king.

Breaking entirely with the priests, Akhnaton left Thebes

and set up his capital at Aton, one hundred and sixty miles south of Cairo on the eastern bank of the Nile. He died at the age of twenty-eight, leaving only daughters to succeed him. They reëstablished the court at Thebes, the city of Aton was abandoned, and its temples and palaces were left to crumble and decay.

I had thought of the Pharaoh who forced the Israelites to make bricks without straw as living at Memphis, near where Cairo now stands. The truth is, he had a great city there, but his capital and favourite home was at Thebes, over four hundred and fifty miles farther up the Nile valley. Thebes was one of the greatest cities of antiquity. It covered almost as much ground as Paris does now and is said to have had more than a million people. The metropolis had walls so thick that chariots drawn by half-a-dozen horses abreast could easily pass as they galloped along them. It had one hundred gates, and temples and residences which were the wonder of the world. Some of the houses were five stories high, the skyscrapers of those days. The riches of Thebes were increased by the successful wars which the kings waged with other nations. The monarchs of that day had mighty armies of infantry and cavalry. Some of the kings had twenty thousand war chariots, and ancient writers say that there were scattered along the Nile from here to Memphis one hundred stone stables, each large enough to accommodate two hundred horses.

It brings one close to the days of the Scriptures when he can put his hand on the very same things that were touched by old Pharaoh; and can visit the temples in which he worshipped, or sit on the monuments erected in his honour, and look at the tomb in which his royal bones

Avenues of sphinxes guarded the approach to the ancient Egyptian temple. Between the paws of each of the ram-headed sphinxes at the great temple at Karnak, Rameses II placed a statue of one of his predecessors.

The Aswan Dam is a huge granite barrier a mile and a quarter long which now controls the waters of the Nile after centuries of alternate flood and drought, saves Egypt from famine, and adds millions of acres to her irrigable lands.

were laid away. One feels closer still when he can look at the royal mummy itself and actually see the hard-hearted old heathen almost as he was when alive, as I did at the museum the other day.

This Pharaoh, Rameses II, was one of the greatest kings of ancient Egypt. His temples are scattered throughout the Nile valley and his statues are the largest ever discovered. One was found in the Nile delta which measures forty-two feet in height, and there are others sixty-six feet high at Abu Simbel in Nubia, about as far up the Nile as Chicago is distant from the mouth of the Hudson. They are seated on thrones and are hewn from the solid rocks. These figures stand in front of the temple, also cut out of rock. This building is said to have been erected by him in honour of his favourite wife, Nefertari, and there are statues of his children about it. These show that he was very much of a family man, for inscriptions on the various monuments mention one hundred and sixty-two of his children by name.

CHAPTER XVI

THE NILE IN HARNESS

WITHIN a mile or so of the red granite quarries, out of which Pompey's Pillar and the obelisks were taken by the ancient Egyptians, just below the island of Philæ, with its stone temples built ages ago to the Goddess Isis, far up the Nile valley, on the edge of Lower Nubia, I write these notes for my American readers. I am in the heart of the desert, seven hundred miles south of the Mediterranean Sea, at the point where the great river drops down over the first cataract. I have come here to describe the Aswan Dam, which the British built to harness the Nile and thereby save Egypt from famine.

We all look upon this as the oldest of rivers, but the Nile god of to-day has many new aspects. For ages he has been ramping and charging at his own sweet will, but he is now being harnessed and will have to work in the traces like an old plough mule. In the past he has been feeding his daughter Egypt or not, as he pleased. He has sometimes stuffed her to repletion, and at others has held back his supplies of water and mud, causing a famine. This was the case during the seven hungry years of Joseph's time, and the fat years of that day were undoubtedly produced by high Niles. Such ups and downs have occurred in Egypt from time to time since the dawn

of her history, and it is only in comparatively recent years that man has attempted to control the old river and by a system of dams hold back the waters and let them out over the farms as needed. To master the Nile has cost many millions of dollars which have gone into building the great barrages in the lower river, and more important than all, the mighty dam away up here at Aswan.

Egypt is almost rainless and the Nile gives both land and people their food and drink. I have already described some of the wonders of the stream and what it does for Egypt. It rises in Lake Victoria, in Central Africa, and drops a distance greater than the altitude of the highest of the Alleghanies before it flows into the Mediterranean Sea. In the upper part of its course it is known as the White Nile, and this should be called the main stream of the river. At Khartum, thirteen hundred and fifty miles from the Mediterranean, the Blue Nile, which rises in the Abyssinian Mountains, comes in, while about one hundred and forty miles farther north the Atbara, or Black Nile, which is also from Abyssinia, joins the main stream. From the mouth of the Atbara to the sea there is not a tributary of any kind connected with the river. It ploughs its way through the desert valley, in which it has built up Egypt, narrowing and widening, until a few miles below Cairo, where it divides into two great branches and flows off into the sea.

The volume of the Nile is enormous. At flood times, a billion tons of water go by at Aswan every day. The river then rises twenty-five feet at Cairo, thirty-eight feet at Old Thebes, and almost fifty feet at the first cataract, where I now am. There is so much water that no dam could hold it, hence all of these great works had to be

made so that the water can be let in and out and allowed to pass through at will.

It is at flood time that the Nile valley gets its rich feed of Abyssinian mud. This is brought down in part by the Blue Nile, but more abundantly by the Atbara, or Black Nile. It is carried by the inundation all over Egypt and by means of irrigation conducted to nearly every farm. After the floods subside the muddy waters grow clear again. The Blue Nile and the Black Nile become almost dry, and the white water of the main, or Victoria Nile, is about all that Egypt has. It is this white water that is stored up by the Aswan Dam, and it feeds the country in much the same way as our irrigation canals do, with water only and not with a thick mixture of water and mud as in the times of the overflow.

For thousands of years these rivers have been pouring down through this Nile valley; but whenever the rains have been scanty in the highlands of Abyssinia and in Central Africa the main stream has not been high enough to reach the whole country. Most of the lands could be inundated only once a year, and if the Nile was especially low some could have no water at all. By the present system Egypt has water all the year round, and enough to make it produce two or three crops every twelve months.

I have been much interested in the irrigation works of the past. The whole of the Nile valley above Cairo is cut up into a series of basins. For six hundred or seven hundred miles north of this point the valley slopes very gradually and, in order to save the water, dikes have been made across it and embankments run parallel with the river, turning the whole country into a series of basin-like terraces, each containing from five thousand to fifteen

thousand acres. These basins, which are often subdivided, are so connected that the water flows from one to the other until it finally passes out of the lower basin back into the Nile. When the floods come, the lowest basins are filled first and then those higher up, until at last all have become great ponds and Egypt is one vast inland sea cut up by the embankments and islands upon which the villages stand.

There are many such systems of basins in Upper Egypt, some large and some small. There are also basins higher up and closer to the river which are filled with *sakiehs* or *shadoofs*. When I tell you that the fall of this valley from here to Cairo is only seven inches to the mile you will see how carefully these basins must be graduated in order to take advantage of the flow of the river. They have to be so constructed that the water can be drained off as rapidly as it is let on. As I have already said, the Abyssinian mud contains a great quantity of salts, and it is just as bad to have too much of it as too little. If the land is over-watered the salts dissolve from the soil, the over-soaked land becomes wormy, and the crops are often sown too late. The red water, or that containing the silt, is allowed to stand just about forty days. During this time it drops a great deal of sediment and furnishes enough moisture for the crops.

But the Aswan Dam has so regulated the river flow that the Egyptian farmer is far less at the mercy of low Niles or high Niles than in the past. The dam is one of the wonders of modern Egypt. It is in full sight of me as I sit here on the left bank of the Nile, with the desert at my back. It looks like a great stone viaduct crossing the rocky bed of the river, joining the stony hills which wall

the Nile on both sides, and holding back a portion of its mighty waters. It is a huge granite barrier a mile and a quarter long. There is now a roadway guarded by walls on its top, and there is a miniature railway, the cars of which are pushed by men from one end to the other. The dam serves as a bridge as well, and donkeys, camels, and men are allowed to pass over it from bank to bank. I crossed on the car at a cost of twenty-five cents, my motive power being two Arab boys who trotted behind.

As I came over, I stopped from time to time to examine the construction. The dam is made of big blocks of red granite as fine as that of any tombstone in the United States. They are beautifully cut, and fitted as closely as the walls of a palace. On the upper side or south face the wall is perpendicular, forming a straight up-and-down barrier against the waters of the Nile. I climbed down a ladder on that side at one place almost to the river, and could see that the blocks are fitted so closely that the cement does not show. The masonry seems almost one solid stone throughout, with the exception of where the great sluices are cut, to allow the river to flow through at the times of the flood, and as the floods subside to shut back the waters to form the reservoir for the dry season.

There are one hundred and eighty of these sluice gates in the dam, each of which has steel doors that can be raised or lowered to allow the whole river to flow through or to hold back as much or as little as the engineers will. The dam is thus a great stone wall pierced by these gates.

The Nile never flows over the top of the dam, but always through the gates and the canal at one side. When the gates are closed during the dry season, enough water is held back by this structure of steel and granite to form a

lake over one hundred miles long, and this is let out as needed to supplement the ordinary flow of the river and give the crops plenty of water all summer through. There is water enough in the reservoir to give all the families of the United States all they could use for four or five months, and enough to supply Great Britain and Ireland the entire year.

The weight of this water is stupendous and its force inconceivable. Nevertheless, during the floods fully as much runs through the dam every day as the whole supply kept back during the dry season; and the structure had to be made so that it would retain this huge lake and at flood time let a lake equal to it pass through.

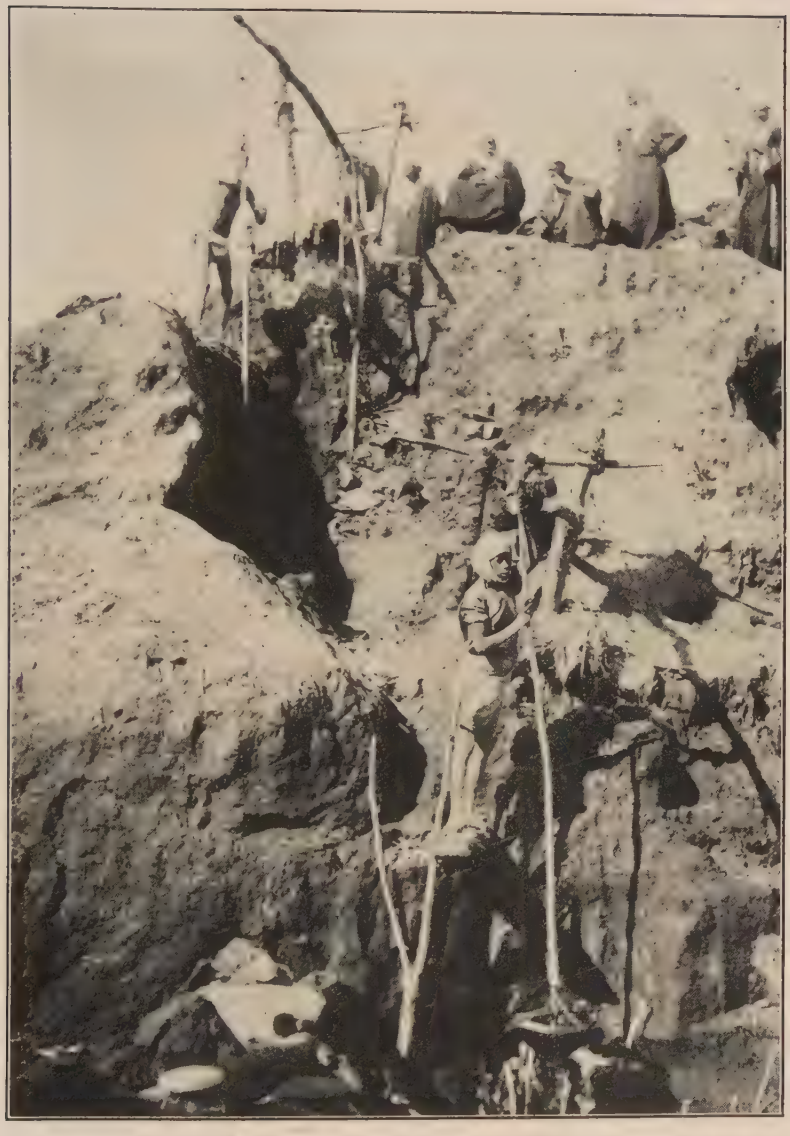
Talk about the Pyramids! The Aswan Dam is far more wonderful than they are. The Pyramid of Cheops required one hundred thousand men and over twenty years in its building. The Aswan Dam was constructed by about eleven thousand men in four years. The Pyramid of Cheops was made by forced labour and impoverished the people. The Aswan Dam cost about twelve million dollars and the men who worked upon it were better paid than any others who had ever laboured in the valley of the Nile. Moreover, the dam has meant prosperity for Egypt. It has added to it more than one million five hundred thousand acres of tillable land and has increased the value of its crops by over thirteen million dollars per annum. It has more than paid for its cost every year. Since it has been built the yearly tax revenues have gained by two million dollars, and the lands owned by the government have become worth five million dollars more.

The dam is also more wonderful than the Pyramids in its construction. Old Cheops is built on the edge of the

desert on a solid stone platform, and is little more than the piling of one stone upon another. For the Aswan Dam a trench a hundred feet wide and a hundred feet deep had to be excavated in the granite rock. This was bedded with concreted rubble to form the substructure upon which the masonry was raised. The dam itself contains more than a million tons of granite and about fifteen thousand tons of steel, and the calculations of the engineers are so exact that they know just how much every ounce of stone and steel will hold back.

I have had some talks here with the engineer-in-chief of the dam, and am surprised at the wonderful intelligence bureau that has been created in connection with the control of the Nile. Its officials know the exact weight of the river at every hour of the day. They have telegraphic reports on what the Nile is doing in Abyssinia, in Central Africa, and in the Sudan. They have dispatches as to every great rain, and they know to a ton just how fast Lower Egypt is using the water, so they can tell how much or how little to let out for the farms. They even estimate the force of the sun on the water and know how much it drinks up every day. When the reservoir is full Old Sol takes a million and a half tons from it every twenty-four hours. They know what the evaporation is, not only at Aswan, but all along the great stream and throughout its swamps to its source in Lake Victoria.

I am also amazed at the strength and delicacy of the machinery of this remarkable structure. The great sluice gates are each as high as a two-story house, and so wide that you could drive a hay wagon through them without touching the walls. They are cut right through the granite dam and are closed or opened by steel doors, which



The gift of the Nile is not had without work. *Fellaheen* too poor to own camels or bullocks lift the river water from level to level and pour it into the irrigation ditches.

The *fellaheen* live in villages and go out to work on the farms. The average mud hut seldom contains more than one or two rooms and is at the mercy of thick clouds of dust from the road.

slide up and down inside the wall on rollers. Upon the top of the dam there are machines for moving these gates, so made that a child could operate them. They are equipped to be operated by electricity, but they are now worked by hand, and this mighty force, so tremendous that two billion horses would be required to move it, is now controlled at will by the muscular power of a single man.

This thought was impressive as I sat below the dam, where the eight central sluices pressed by the millions of tons of water lying behind them poured forth their mighty flood. I had climbed down the steps at the north side of the centre of the dam to make a photograph of the streams flowing through. They come forth with a rush like that of Niagara and go foaming over the rocks with a force that might generate thousands of horsepower. The noise is like thunder and the torrents fairly shake the earth. Each is about fifteen feet in height and yellow with mud. There were eight such streams of golden foam at my right, and farther over I could see the spray from others all dashing through the dam until they met in a yellow frothing mass several hundred feet below me and rolled onward down the rocks to Egypt. They flow out with such a force that they tear up the rocky bed of the Nile, lifting stones weighing many tons and carrying them some distance down the river. They have done so much damage of this nature that a cement foundation has now been made below the dam itself in order to prevent the gouging out of the bed which would mean the undermining of the main structure.

But the thirsty land and its teeming millions forever clamour for more water. Even this great Aswan Dam has not nearly solved the irrigation problem of Egypt. There

are always too many would-be farmers for the watered area. At the present rate of growth, it is estimated, the population will have increased by the middle of the century to twenty millions of people, practically all of them dependent on agriculture, and so on this one river system. The government has yet more ambitious schemes for hoarding and meting out its precious waters.

At Wady Halfa, about two hundred miles up the river from Aswan, begins the Sudan, which extends for thousands of miles southward. In controlling this vast territory, Great Britain has hold also of the upper reaches of the Nile from the south boundary of Egypt proper into the Great Lakes of Central Africa where the river has its source. The irrigation works, new dams, and reservoirs planned or building on the Upper Nile are intended to increase the arable lands not only in the Sudan but in Egypt as well. The projects which the British have for the improvement of the Nile will rank as the most daring of the engineering plans of the century. To carry them out will cost as much as the Suez Canal, but they will build up fifteen hundred or two thousand miles south of the Mediterranean Sea, several other Egypts twice or thrice as rich as the lower Nile valley, each supporting its millions of people.

The projects include schemes for the regulation of the Great Lakes on the highlands of Central Africa, to make them serve as reservoirs for the Nile. They include, also, plans for the embankment of the tributaries of the White Nile flowing through the great swamps on the northern slope of the Congo watershed, and the digging of over two hundred miles of new channel, whereby the main stream of the White Nile will be greatly shortened and its bed

fitted to carrying the enormous volume of its waters down to Khartum. Another scheme contemplates the erection of a dam at Lake Tsana, on the highlands of Abyssinia, which will make that lake a reservoir for the Blue Nile and enable it to water the fertile plain which lies between the Blue and White Niles, ending at Khartum.

The great trouble now is that a large part of the waters of the Nile go to waste, particularly in the swamps of the Sudd region. These mighty swamps lie on the northern slope of the Congo watershed and are fed by the branches of the White Nile known as the Bahr el Jebel, the Bahr el Ghazal, and the Bahr el Zaraf. They begin where the River Sobat flows into the Nile and form an irregular triangle, the base running from that point two hundred miles westward, with the southern apex at Bor, which is two or three hundred miles farther south. They lie on the bed of what in prehistoric times was a great lake, and are composed of masses of reeds, papyrus, and other swamp grasses, so interlaced that they soak up the water like a huge sponge. Imagine a sponge as big as the State of Indiana, from two to six feet in thickness, and so situated that it is always filled by the waters of the Nile and you will have some idea of this region. This sponge is near the Equator where the tropical sun beats down upon it, so that steam is always rising. It sucks up the waters of the Nile and gives them out into the air. The evaporation in the Sudd and along the courses of the Nile is so great that an amount equal to half the capacity of the Aswan reservoir is lost every day. In the summer fully fifty per cent. of the water supplied by the Great Lakes never gets into the main stream of the Nile. The water of this swamp is nowhere much above a man's head, and in most

places, except where the main stream flows through, it is only waist-deep. The evaporation increases at the time of the flood, when more land is covered, so that no matter how much water flows into the swamp, only about the same amount flows out.

The vast masses of floating weeds break up and burst into the channels, and when an obstruction is encountered they pile up on one another just as ice does. In the hot, dry season, when the stems of the papyrus are ten or fifteen feet high, the natives start fires which sweep the region from end to end, destroying all other vegetation. The ashes and burnt stems add to the floating mass, which after a time becomes five or six feet in thickness and almost like peat.

In clearing this Sudd and reopening the channels, the first step is to cut down the vegetation. The sponge-like mass is then cut with long saws into blocks, much as ice is harvested on our ponds. The blocks are pulled out into the current by steel cables attached to the engines on the steamers and float down the stream. An immense deal of this kind of work is going on all along the Upper Nile, for it is only in this way that navigation is kept open.

I have met some of the surveyors who are breaking a way through the Sudd. They describe it as a vast sheet of brilliant green made up of papyrus, feathery reeds, and sword grass. These rise from five to fifteen feet above the water and are broken here and there by patches of ambatch trees and by channels, pools, and lagoons. The greater part of the region has no human inhabitants, especially that along the Bahr el Ghazal.

Big game is to be seen only to the south of the swamp area. There the land is a little higher, and elephants,

giraffes, and buffaloes inhabit the edges of the swamps. In the heart of it, in fact, in all parts of it, there are vast numbers of hippopotami, and there are all sorts of swamp birds everywhere. From the reeds and the mud banks clouds of wild cranes, geese, storks, herons, pelicans, and ducks of every description rise up as the boats approach, and there are insects by millions—mosquitoes, moths, spiders, and flies. There are other insects that carry fevers, and the tsetse fly, which causes the sleeping sickness.

When all the Upper Nile plans and projects have been put through, the whole river will indeed be a magically powerful, yet tamed and harnessed, domestic animal at the command of the farmers of a greater Egypt and a greater Sudan.

CHAPTER XVII

STEAMING THROUGH THE LAND OF CUSH

FOR the last two days I have been steaming through one of the oldest lands of the globe. I have been travelling up the Nile through the country which belonged to Noah's grandson, Cush, who was Ham's eldest son, and which was known to the Greeks and Romans in later days as Ethiopia. The Egyptians called it Nubia, from their word *noub*, which means gold, and it is known that a large part of the gold of ancient time came from it.

Ancient Nubia had a considerable population, and was noted for its riches and power. It was already a flourishing country about the time of the Pyramid builders, while in the most prosperous days of Old Egypt it had large towns and magnificient temples dedicated to the worship of the Egyptian gods. On my way here I passed Abu Simbel, a great temple on the bank of the Nile, which was cut out of the rocks by Rameses II, the Pharaoh of the Bible. Farther down the river lies the Temple of the Lions, where that same old king was himself worshipped as a god.

Until 1100 B. C. this country was a dependency of the Pharaohs. It then became independent, and later its armies overran and conquered Egypt. As other nations came into this part of the Nile valley they sent their armies against the Nubians, but were driven back, and at the time the Romans came the country was ruled by a succession of

queens named Candace, one of whom made war upon the Romans. The Nubian people very early adopted Christianity, but later, when the Mohammedans took possession of Egypt and the Upper Nile valley, they were converted to Islam. They are still followers of the Prophet, and were among the boldest soldiers of the fanatical Mahdi in his fights against the troops of Egypt and Great Britain.

A land with such a history ought to be a rich one. The Nubia of to-day is about as barren as any country on earth. With the exception of a narrow band along the Nile, it is altogether desert. Beginning in the sands of Libya, it extends several hundred miles eastward to the Red Sea, but only in a few places has the soil enough moisture to furnish even a scanty pasturage for camels and sheep. The bulk of the desert population is made up of Bisharin Bedouins, living in tents made of matting and moving about from place to place with their flocks. Each tribe has a certain number of wells, and water is the principal part of its visible wealth. The British officials of the Sudan have surveyed these wells and investigated their depth and the quality of the flow of the water. The government has also sunk some new wells and found water at a depth of about one hundred feet.

Nubia is now a part of the Upper Nile valley, a cultivated strip, in places only a quarter of a mile wide, winding its way like a snake from north to south as far as from New York City to Detroit, and extending on both sides of the river. It is of irregular width, for in some places the desert comes close to the river, while in others the stream winds through black rocky hills which rise straight above it a thousand feet. Farther on, one sees yellow sand, spotted with black rocks, which show signs of volcanic

origin, and then at a low bend in the river the water may be conducted out over the sands and create a cultivated patch three miles in width.

The Nile is so walled in by hills that its waters have to be lifted in order to flow over any level place. This is done chiefly by the *sakiehs*, of which there are something like four thousand on the Nubian Nile. The great wheels, moving in cogs, can be seen high up on the banks, with their strings of buckets hanging to them. As the buckets descend, each dips into the water and carries to the top a few quarts at a time. In some places men raise the water in baskets or buckets, and in others, the river slopes at such an angle that they carry it up by hand and water little patches twenty or thirty feet wide. Every low place along the river is farmed, and when the Nile falls, the sand banks and islands are planted to crops.

Wherever there is a stretch of cultivated land, a village of mud and stone huts has grown up, and such villages spot the banks for hundreds of miles. At times there is no green except between village and river, and one wonders how men can be born and live and die there. Nevertheless, there are more than one hundred thousand people to whom this region is the centre of the world.

Though much of this Nile border is too narrow for profitable cultivation, it is very fertile and raises excellent cotton. At present the other chief crops are wheat, barley, and millet, and the chief fruit is dates, which are sweeter and larger than those grown farther down the Nile valley. Indeed, the date trees that one sees almost everywhere along the banks are a source of revenue for the government, which taxes them at the rate of ten cents per tree.

"On the *Ibis* we make about six miles an hour as our dusky Nubian pilot corkscrews up the Nile. Fortunately we are almost free from the myriad flies, the modern plague of Egypt."

Though the Aswan Dam has been of inestimable benefit to Egypt, the whole world shares regret that when the sluice gates are closed the water backs up and submerges Pharaoh's Bed and other ancient ruins on the Island of Philæ.

STEAMING THROUGH THE LAND OF CUSH

The steamer *Ibis*, on which I have been travelling, is one of the little vessels of the Sudan government which go twice a week from Shellal, just above the Aswan Dam, to Wady Halfa, where the railroad across the desert begins. The ship is a sternwheeler, much like those on some of our rivers. It is about twenty feet wide, one hundred and fifty feet long, and draws only six inches. We make about six miles per hour, and our pilot, a dark-faced, short-bearded Nubian in turban and gown, corkscrews his course from one side of the river to the other as we wind our way up the stream.

We fly the Egyptian and Sudanese flags, but the steamer belongs to the government of the Sudan which means it is British. The captain, however, is a German, and the rest of the crew are Nubians, most of whom are as black as your shoes. The captain speaks German, French, English, and Arabic. He attends to everything connected with the steamer, even to the meals and the proper table service. Our waiters are black-faced Nubians in long white gowns and sashes of bright red. They wear white turbans, and their feet are either bare or shod in red slippers.

I find the steamer comfortable and the company agreeable. The boat has two decks. On the lower one are thirty cabins and the dining room, where our meals are served table d'hôte. Over the upper deck an awning is stretched, so that we can sit and watch the scenery as as we go up the river.

Our party consists of several commercial travellers, bound for the Sudan and Central Africa; two missionaries who are going up the Sobat River; a capitalist, largely interested in land development enterprises about Khartum,

and several people who are on their way to the Blue Nile to hunt big game. Although we are far away in the wilds of Nubia, with nothing but desert on each side, most of us appear in evening clothes at dinner. Our meals are served in courses with half-a-dozen changes of plates, knives, and forks.

Here is our bill of fare for one day. At seven this morning, while I was yet in bed, my black boy appeared and handed me a cup of hot tea, with two sweet crackers on each side of the saucer. At eight o'clock the bell rang for breakfast in the dining room. The meal consisted of fried fish fresh from the Nile, bacon and eggs, bread and butter and jam, with tea or coffee. At one o'clock came luncheon, a bountiful meal of rice, giblets, chicken, mutton chops, and fruit, with bread and butter and cheese. Coffee, of course. At eight o'clock we had dinner, and the menu was as follows: An excellent soup, then a boiled fish just out of the Nile, followed by a salmi of pigeons, roast lamb and mint sauce, with potatoes and string beans. Then there was a course of tomato salad, and after that a pudding and fruit.

I do not find travel in Africa at all cheap. If one travels along the Nile he must expect to spend about fifteen dollars a day, the cost increasing as he goes up the river. My trip from Shellal to Khartum and back by rail and steamer, a distance not very much greater than from New York to Chicago, will be one hundred and fifteen dollars, or about six cents per mile, and I shall pay at Khartum a hotel rate of at least five dollars per day.

If one attempts to travel economically he must expect many discomforts. On this boat first-class passengers only are carried. We have some second- and third-class

passengers, but they stay on a low barge which we tow alongside. This barge has a flat deck of rough boards covered by a roof. The people carry their own bedding and lay it down on the boards. They must supply their own food, and as the servants of the first-class passengers, and natives, who are far from clean, travel in that way, the company is not desirable. Besides, it is very cold at night, and those who sleep on the decks have the desert breezes blowing over them all night long. It is cooler here than in Egypt, although we are nearer the Equator. I have a woollen blanket on my bed, with a heavy travelling rug on top of that, but still I am none too warm. In the early morning I wear an overcoat on deck, although at noon it is so hot out of the breeze that I would fain take off my flesh and sit in my bones.

Sailing up the Nubian Nile we are almost free from the flies such as are found by millions in Egypt, but Nubia has a little fly of its own which is almost unbearable. This is known as the *nimetta*, a small midge, which appears in myriads during the winter season. Its bite causes a slight fever, and the natives sometimes wear bunches of smouldering grass twisted about their heads to keep it away.

The flies of Egypt are probably the descendants of those which the Lord sent to afflict Pharaoh when he would not let the Children of Israel go. They look not unlike the common fly of our country, but they are bolder and hungrier. Their feet stick to one as though they were glued and they will not move until forcibly brushed off, but the Egyptian peasants have become so used to them that they let them stick at will. Their favourite feeding place seems to be on one's eyes. This is especially true of

the children, and it is a common sight to see a child with its eyes so fringed with flies that it seems to have double eyelashes. The flies cover the meat in the markets, they roost on the buffaloes, camels, and donkeys, and attack the tourist to such an extent that the selling of fly brushes has become an Egyptian industry. The brushes are tassel-like affairs with long strings similar to the hairs of a horse's tail.

Everyone knows that flies carry disease and many of the troubles of the Egyptians are due to them. Ophthalmia is especially prevalent. There are blind people everywhere, while one-eyed men and women are common. Diseases of the eye are so universal that one of the charities of Lower Egypt is a company of travelling eye doctors, who are supported by a rich Englishman. The doctors go from village to village, carrying their tents with them. As they enter a town, word goes out that the poor will be treated without charge, and crowds come to their tents to have their eyes examined and cured. They remain in one town for a month or so, serving the poor without money and without price. The institution does great good.

The port of Shellal, where I took the steamer for Wady Halfa, lies opposite the island of Philæ, and during my stay there I made several trips to the island to take photographs of the ruined temples, which have already been more or less affected by the backing up of the water of the Aswan Dam. When the Aswan Dam was first proposed a great outcry came from the savants and archæologists of the world on account of the injury that it would do to Philæ, but the material results have been so valuable to Egypt that the dam went ahead, regardless of the pres-

ervation of these ancient ruins. Something like one hundred thousand dollars was spent in fortifying the structure during the building of the dam, and it is probable that twice this amount would have sufficed to take up the temples and carry them to the mainland, or even transport them to Cairo, where all the world might see them.

The island of Philæ, which is on the edge of lower Nubia in the centre of the Nile just above the first cataract, is reached by ferry boat from Shellal or from Aswan and the dam. It is about fifteen hundred feet long and five hundred feet wide, and almost covered with temples built by the Ptolemies and others two or three centuries before Christ.

The chief deity of Philæ was the goddess Isis, though Osiris, Hathor, and the gods of the cataracts were also worshipped there. Under the Roman emperors the temples were enlarged, but when Egypt was converted to Christianity, the hermits and other fanatics made their way into Nubia and took possession of it. They turned some of the temples into Christian churches and their mutilations of the splendid carvings made in honour of the gods of Old Egypt can be plainly seen at low water.

The ruins are well worth a visit. Some of the structures have a forest of columns about them. The Kiosk, which is known as Pharaoh's Bed, is one of the most beautiful of the Egyptian temples. The stones are all of great size. They probably came from the Aswan quarries, or it may be from the granite rocks that abound in the desert. That region is almost all granite. I rode over it for thirty miles on donkey back, making my way through the desert around and about granite boulders worn smooth by the sandstorms of thousands of years. The rocks are of all

shapes and are piled, one upon another, as if by the hands of a race of Titans. Here one stands high over those surrounding it, as though on a pedestal; there others are massed like fortifications; in another spot they rise in towers.

I visited the Aswan quarries, the great stone yards from which the obelisks were taken, and from which came the mighty statues of Rameses and the massive blocks of the greatest of the Theban temples. The quarries to-day are much the same as they were when the Egyptians left them two or three thousand years ago. One can see the marks of their wedges on the rocks and the markings of the old stone-cutters are plain. In one place there is an obelisk half finished, lying on its side, just as the masons of the Pharaohs left it ages ago. When the granite was taken out for the Aswan Dam, the Italian workmen used many of the blocks that the ancient Egyptian mechanics had begun to cut; indeed, that great granite structure was made in partnership by two sets of mechanics born thousands of years apart.

CHAPTER XVIII

FROM THE MEDITERRANEAN TO THE SUDAN

I AM in the Sudan on the northern section of the Cape-to-Cairo railroad. I am in the upper end of Nubia at the railroad station of Halfaya, just opposite Khartum, and as far south of Alexandria as the distance from New York to Denver.

In imagination come with me on the trip from the Mediterranean to Khartum. We shall need four days to go from the sea to the junction of the White and Blue Niles, where I now am, but the journey will for the most part be comfortable and there are interesting sights for at least part of the way. We start at Alexandria, the chief sea-port of the whole valley, and in three hours our train carries us across through the delta to Cairo, for there is frequent and rapid train service between these two chief cities of Egypt.

As we go first class, we must pay three cents a mile. The second-class fare is only half as much as the first, and the third is still cheaper. Every train has first-, second-, and third-class cars. Those of the first, which are divided into compartments, are patronized by tourists and officials. The second-class car is much like the coach of our American train, having an aisle through the centre. These cars are used by merchants, commercial travellers, and well-to-do natives. The third-class cars are cheaply made and their seats are wooden benches. They are always

filled with the common Egyptians, and foreigners seldom travel in them. Our tickets are little blue cards with the price printed upon them in English and Arabic. We have to show them to the guard as we enter the train, and they are not examined again until they are taken up at the gates of the station as we go out.

We have some trouble with our baggage, for as usual with Americans, we are loaded with trunks. Only fifty-five pounds can be checked without extra charge, and my trunks often cost me more than my fare. We notice that the English and Egyptian passengers put most of their belongings into bundles and bags, which they can bring into the cars with them. Many a single passenger is carrying four or five valises, each holding as much as a small steamer trunk, and the compartments are half filled with such luggage. Every first-class car has a guard, or porter, who helps us off and on, and there are always *fellaheen* at the depot ready to carry our effects for five cents apiece.

Most of the Egyptian trains have a small car next to the engine, an express car back of that, and also cars for animals. Our train carries one in which are two blanketed horses, with Egyptian grooms to take care of them. They probably belong to some rich nabob of Cairo, and are going south by express.

The postal cars are carefully watched. The bags of mail are carried to them on red trucks made for the purpose. The trucks are pushed by the Arabs and mail is handled by them; but a dark-faced soldier with rifle and sword marches along to see the bags taken in and out. When a truck is loaded, the soldier goes with it to the post-office wagons. There is always a guard on such Nile

The Bisharin are desert folk, whose chief possessions are their wells and flocks. They pity city dwellers and scorn those who till the soil. This aged warrior has his short spear and rawhide shield.

Villages of mud huts spot the banks of the Upper Nile for hundreds of miles. The dates grown along here are sweeter and larger than those from farther down the river.

The Bisharin inhabit the desert beyond the narrow green strip along the Nile. Their matting tents are easily moved from place to place in their search for pasturage.

steamers as carry mail, and the letters are never left without some armed official to watch over them.

The railroads of Egypt and the Sudan are under the government, and I find both systems pay. Those of Egypt earn about six per cent on their capital stock and their working expenses are only about seventy-three per cent. of the gross receipts. The business is rapidly increasing. They carry some twenty-six million passengers a year and some five million tons of freight. Egypt now has something like fifteen hundred miles of railroads which belong to the government, and in addition more than seven hundred miles of agricultural roads managed by private parties. The earnings of the latter are increasing, for they carry more freight and passengers from year to year.

The main lines are managed by Egyptian and European officials. The superintendents of departments, who receive three thousand dollars and upward a year each, are mainly Europeans, while the inspectors and sub-inspectors, who get from eighty dollars to two hundred and forty dollars a month, are in the main foreigners. Under these men are the native guards, track workers, and mechanics of various kinds, who receive smaller wages. They are almost all Egyptians, there being some twenty-four hundred of them to about one hundred and fifty Europeans.

The Sudan roads go through a thinly populated country, but the receipts are already considerably more than their working expenses and are rapidly increasing.

The Alexandria–Cairo division of the Cape-to-Cairo road taps one of the richest countries on earth. I mean the delta of Egypt, which is more thickly populated than most other parts of the globe. The distance from Alexandria

to Cairo is one hundred and thirty-three miles, and all the way is through rich farm lands. There is no desert in sight until you reach Cairo. Cotton is piled up at every depot, there are vast loads of it on the canals which the track crosses, and at the stations cars of cotton bales fill the side tracks.

The next division above Cairo goes to Asyut, which is two or three hundred miles farther south. Then comes the road from Asyut to Luxor, ending with the narrow-gauge line from Luxor to Aswan. These divisions are through the narrow part of the Nile valley, with the desert in sight all the time. The river winds this way and that, but the railroad is comparatively straight, and is often far off from the river amid the sand and rocks. Such parts of the line are uncomfortable going. At times the sands are blinding, the dust fills the cars, and our eyes smart. These discomforts are somewhat less in the first-class cars. All of them have shutters and double windows to keep out the dust, and the inner window panes are of smoked glass to lessen the glare. With the shutters up it is almost dark and when both windows are down the interior has the appearance of twilight. When clear glass alone is used the rays are blinding and the sun comes through with such strength that it is not safe to have it strike the back of one's neck. In addition to the double windows and shutters there are wooden hoods over the car windows, so that the direct rays of the sun may not shine in. The cars have also double roofs, and the doors have windows of smoked glass. There is so much dust that it comes in when everything is shut tight, and the porter has to sweep up every hour.

I found the conditions even worse in the Nubian Desert,

which I crossed on the railroad from Wady Halfa, where I left the steamer *Ibis*, to Berber. That region is about the dreariest and most desolate on earth. It is all sand and rocks, with here and there a low barren mountain. The Nubians themselves call it "the stone belly," and the name is well chosen.

The road through Nubia is a part of the Sudan military railway that extends from Wady Halfa to Khartum. It is one of the iron gateways to the Sudan, the other being the railway which the British have built from Atbara to Port Sudan and Suakim on the Red Sea. The military line is almost as long as from New York to Detroit and the Port Sudan line from the Red Sea to Arbara, where it connects with the military line, is less than half that length.

The Port Sudan road vies with the military railways in being one of the dirtiest railroads ever constructed. Its whole route is across the Nubian Desert. There is no vegetation at all between Atbara and the Red Sea until within about nine miles of the coast, and then only a scanty growth of thorn bush and scrub that feeds small flocks of camels and sheep.

This Red Sea road was opened about 1905. Since then it has been carrying a large part of the trade of the Sudan. Mohammedan pilgrims from Central Africa and the Lower Nile valley use it on their way to and from Mecca, and occasionally tourists come to Khartum via the Suez Canal, the Red Sea, and this railroad.

The military line from Wady Halfa is the one built by General Kitchener during the war with the Mahdi. Constructed in less than eighteen months by the British engineers and soldiers, it is one of the most remarkable

examples of railroad building on record. A large part of it was laid in the hottest time of the year and at the rate of one and a quarter miles per day, and once, more than three miles were laid in one day. Yet the work was so well done that heavy trains could travel safely over it even when making twenty-five miles an hour. It was built through a waterless desert which had never been mapped until the railroad surveyors went over it. During its construction the survey camp was kept about six miles in advance of the rail head. The road was built through a hostile country where there was constant danger of attack by the Dervishes.

To-day the cars move as smoothly over those tracks as they do over those of Egypt, and give that country regular connection with the Sudan. There is now a train de luxe connecting Khartum with Wady Halfa equipped with sleeping and dining cars.

The sleepers are divided into compartments about seven feet square with two berths to each. There is an aisle along the side of the car from which the compartments are entered, and each of the latter is large enough to enable one to have a wicker chair in it in addition to the berths. Every little room has an electric fan and is lighted by electricity.

The dining-car service is good and comparatively cheap. The meals consist of a cup of tea and some crackers brought in by a Nubian porter at daybreak; a breakfast in the dining car at eight o'clock; a table d'hôte luncheon at one, and a dinner in the evening.

In riding over the Sudan military road we stopped for a time at Atbara, where the Black Nile from Abyssinia flows into the main stream. Here is the famous bridge

built by Americans upon orders given by General Kitchener. The contract was first offered to the English, but they were not able to build the bridge in the time required, so the Americans took the job and finished it. Atbara is now an important division point where the road across the desert to the Red Sea branches off. As we stopped at the station our engine struck me as looking familiar. I walked to the front of the train and examined it. Sure enough, it was a Baldwin, with the name "Philadelphia" standing out in the full blaze of the Nubian sun. Later on, when I crossed the Black Nile over the steel bridge put up by our builders, I felt that I was not out of touch with home, after all. I was being hauled by an American engine over an American bridge, though I was in the heart of the Nubian Desert more than a thousand miles up the Nile. The thought makes one proud of our American enterprise and mechanical genius.

At Atbara I learned a great deal about the road, which starts here on its three hundred and thirty mile journey through the Nubian Desert to the Red Sea. This little town might be called one of the railway centres of the Sudan. Lying at the junction of the two chief railways, it has the principal railroad offices and shops and is the home of the director, with whom I had a long talk about his line to the Red Sea. He had a part in building the road and is now its manager. We first visited the shops, which cover two or three acres of sandy waste. They are great sheds with walls of galvanized iron and roofs of iron and plate glass. I saw many locomotives, cars and steel ties, and telegraph poles outside. Going in, I found all sorts of railway repair and construction work under way. The machinists were a mixture of whites, blacks,

and yellows, representing a half-dozen different nations and tribes. There were British overseers, Greek and Italian mechanics, some Nubian blacksmiths, and many Nubian boys taking a sort of manual-training course in order that they may serve as locomotive engineers, under machinists and trackmen. The machinery is of modern make and the shops are well equipped.

As we walked among the lathes and planing machines the director pointed out to me some of the peculiarities of the wear and tear of the desert upon railway materials.

"Here," said he, as he pointed to the wheel of an American locomotive, in which was cut a groove so deep and wide that I could lay my three fingers in it, "is an example of how the sands ruin our car wheels. The flint-like grains from the desert blow over the rails, and as the cars move they grind out the steel as though they were emery powder. Consequently, the life of a wheel is short, and we have to cut down its tire every few months. Moreover, the sand gets into the bearings, and there is a continual wearing which necessitates almost constant repair."

"How about your sandstorms? Are they serious obstacles to traffic?"

"At times, yes. They come with such violence that they cover the tracks; they cloud the sun so that when you are in one you cannot see your hand before your face. They often spring up afar off, so that you can watch them coming. At such times the sand gets into everything and cuts its way through all parts of the machinery.

"Another thing we have to contend with," continued the railway manager, "is the extraordinary dryness of the air, which shrinks our rolling stock so that it has to be tight-

ened up again and again. One of our passenger cars will shrink as much as eighteen inches in one wall alone, and we have to put in extra boards to fill up the gaps. The same is true of all sorts of woodwork.

"Another trouble is the white ant. That little termite eats anything wooden. It chews up the insides of our cars and even attacks the furniture. Where there is the least moisture the ants will go for the railroad ties, and they will chew out the insides of the wooden telegraph poles. They always work under cover, leaving a thin shell of wood outside. The result is that a tie or pole may look sound then all at once it will crumble to pieces. We have to inspect the road very carefully at regular intervals and watch out for weak points. We now use hollow steel tubes as ties. They do not make so smooth a road as the wooden ties, but the ants cannot eat them. We also have steel telegraph poles."

"I noticed my train was pulled by an American locomotive. How do they compare with those from Great Britain?" I inquired.

"Not well," replied the railroad director. "We have some of your engines which we bought seven years ago. We are still using them, but most of them have been repaired and made over. You people make locomotives, expecting to run them to their full capacity for four or five years and then throw them on the scrap heap. This is not advisable out here in the desert, where freight costs so much and the trouble of getting our rolling stock is so great. We want machinery that will stand all sorts of trials, including the climate. We want it rustproof and rotproof and heavily made all around. We have here not only the dry air and the sand to contend with, but also in

the neighbourhood of the Red Sea the salt air and the alkali water."

"I suppose the lack of water is one of your chief difficulties, is it not?" I asked.

"Yes. This railroad is over three hundred miles long and the track is laid through the sand. For about one third of the distance inland from the Red Sea the country is mountainous, but the rest of it is flat. There are no streams, so we have to rely on artesian wells for our water supply. We have bored a number, but we find that the water in many places is salt. We struck one well which had three per cent. of salt in it, and another in which the water was one per cent. salt. Of course such water is useless for our locomotives.

"We are having trouble also in getting a good water supply at Port Sudan. We sunk one well to a depth of eight hundred feet and struck a good flow of fresh water. We had hardly completed, it, however, before the salt water began to seep in, and we are now drilling again. There are some stretches along the route where there is no water whatever. In such places we have to carry our supply with us. For this we have tanks of galvanized iron, each of which will hold about fifteen hundred gallons."

From Atbara I took a later train to continue my journey on toward Khartum. About one hundred miles south of Atbara we stopped at Shendi, where the Queen of Sheba is said to have lived. This is a station on the east bank of the Nile five hours or more from Khartum. It is a considerable town with railroad shops. I saw great piles of steel ties such as Captain Midwinter mentioned.

Shendi consists of an old and a new town. The latter has been laid out by the British and has a park in the

The mud towers outside some Egyptian huts are used by whole families as cool sleeping places out of reach of scorpions. Sometimes mothers leave their babies in them while they are working in the fields.

The child so contentedly sucking sugar cane is, like four out of every hundred children in Egypt, blind in one eye. This is due chiefly to the superstition and ignorance of their parents.

centre watered by the Nile. In ancient times there was a great city here, for it was the capital of the country and the supposed residence of the Queen of Sheba, who went from here down the Nile and crossed to Palestine. There she had her famous flirtation with King Solomon. The Abyssinians say that she went back by the Red Sea and stopped in their country; and that while there she bore a son whose father was Solomon and who became the head of the line of kings which rule Abyssinia to-day. The Mohammedans, on the other hand, say that the Queen of Sheba did not live here at all. They claim that her residence was in Yemen, Arabia, and that Solomon went there to visit her. The queen's name was Balkis. As witty as she was beautiful, she gave the wise Solomon many a riddle which he was puzzled to answer.

CHAPTER XIX

ACROSS AFRICA BY AIR AND RAIL

THE airplane has completed the conquest of the Dark Continent. A two-months' journey from Cairo to the Cape of Good Hope has been reduced to a possible fifty-two hours of flying, each hour representing one hundred miles through the skies.

Cecil Rhodes died hoping that one day his countrymen would finish the greatest of his African projects, an all-British route traversing the continent. His dreams were based upon steam, and compassed a route of rail and water transport taking advantage of the Nile and the Great Lakes. Those dreams are becoming realities, and to-day only a few gaps remain unfilled on the long way from the north to the south. In the meantime, aircraft has sprung almost full fledged into the skies, and the gasoline engine and the airplane have beaten the steam locomotive and its steel track through the wilds.

The first flight from Cairo to the Cape was made by two officers of the South African Air Force, Colonel P. Van Ryneveld and Lieutenant C. J. Q. Brand. Of four competitors who started from Cairo, they were the only ones to land at Cape Town. They had several accidents and wrecked two machines on the way. Leaving Cairo on February 10, 1920, they took twenty-eight days to reach Cape Town, although their actual flying time was counted in hours. Their nearest competitor covered only half the

distance, while the two others did not succeed in getting across the desert wastes of the Sudan.

In the airplane of our imagination, let us take the trip they made. We may be sure of excitement, for even under favourable conditions we are starting out on one of the most dangerous air journeys known to the world. But let us first look at a map and pick out our route. It is a jagged line, extending from north to south, the length of the continent. It is marked with dots and triangles, each showing a place where we may land. As we look at the map it seems quite simple and easy, but actual experience proves its great difficulties.

We shall leave Cairo at dawn and follow the Nile to Khartum. This is a flight of one thousand miles, but landing places have been prepared along the entire route at intervals of two hundred miles. We shall stop at one of these long before noon and spend several hours to avoid the heat of the day, when gusts of hot air, rising from the sun-baked desert, make it dangerous to fly at low altitudes. At the start of our flight we shall rise a mile or more to avoid these treacherous currents, which frequently take the form of "air spouts," often visible on account of the dust and sand they have sucked up with them. Such currents have force enough to toss our plane about like a leaf in the wind. With these great gusts of hot air spouting upward are cold currents rushing downward. These are even more dangerous, as they are always invisible. Consequently, we shall fly high, to avoid a "bumpy" passage, as our pilot calls it, and in landing must be careful lest we get caught in an air pocket.

From Khartum we start on the second, longest, and most dangerous leg of the journey. This covers a distance

of twenty-six hundred miles, extending to Livingstone near Victoria Falls in northern Rhodesia. We shall follow, in a general way, the Blue Nile to Ehri, and then go almost due south to Uganda and Lake Victoria, the second largest lake of the world. We shall skirt the eastern edge of the Sudd, in which there is hardly a single safe landing place. Except in the main channels, masses of papyrus completely hide the water, and if we should come down in that treacherous region we could hardly hope to get out alive. We should be unable to walk, swim, or float in the dense tangle.

This second leg of our journey takes us into the heart of Africa. The country is wooded and mountainous. It is very hot, for we are nearing the Equator, which cuts across the upper edge of Lake Victoria. In fact, our pilot will not fly after nine in the morning nor earlier than four o'clock in the afternoon. The air is more "bumpy," and often terrific thunderstorms seem to fill the sky with sheets of water. In dodging these storms, we must be careful not to fly so far off our course as to be forced to land in the wilds. The country here is a mile or more above sea level, and if we should fly too high in order to avoid the heat gusts, we may have trouble with our engines in the rarefied air. Below us are dense forests and rocky hillsides, and natural landing places hardly exist. As we go down the eastern shore of Lake Victoria we see new sights. These are the water-spouts, great spiral columns whirled up from the lake into the air by the eddying winds.

Our route from Kisumu, on Lake Victoria, is to the southwest, and we land at Mwanza, on the south shore. This is one of the outposts of the white man's civilization

Swamps, huge anthills, scrub bush, outcroppings of rock; and stretches of tall, rank elephant grass combine to make natural landing places exceedingly rare on the second stage of the airplane journey, which is most difficult and dangerous.

The flight from Cairo to the Cape takes the aviator over clusters of native huts, dwarfed to the size of anthills, through which run the signs of civilization—ribbons of well-constructed road.

Fuad I, who became the first king when Egypt was declared a sovereign nation, came of the same family as the khedives of the last hundred years. He gave Egypt its flag, three white crescents and stars on a red field.

in "darkest Africa." From Mwanza we continue southwest across Tanganyika Territory to Abercorn at the lower end of Lake Tanganyika, and then fly on to Broken Hill in northern Rhodesia, where once more we see a railroad.

Preparing landing places in this part of Africa was a big job in itself. Not only were thousands of trees cut down to make clear spaces, but they were dug up by the roots to prevent them from sprouting again. Many of the native chieftains take great interest in keeping clear these airdromes, which would soon be gobbled up by the jungles if left to themselves. They have also broken up and carried away from these spaces the giant ant hills that cover the land of Central Africa like freckles on a boy's face. These hills, which are often twenty-five or thirty feet high, and forty or fifty feet thick, are the home of the white ant. To make one airdrome in northern Rhodesia a force of seven hundred natives worked five months taking out twenty-five thousand tons of the heavy, rock-like clay with which the ants, grain by grain, had built their African apartment houses. Were our airplane to strike an ant hill in landing, it would surely be wrecked.

From northern Rhodesia down into Cape Colony our flight is not quite so difficult. The country is lower, and there are more open spaces. At Livingstone we begin the third stage of the journey, and there cross the Zambesi, looking down upon its wonderful falls, larger than Niagara. From Bulawayo, the next important stop, we bear to the east as we go south, passing over the Transvaal, with its diamonds and gold mines. We stop at Johannesburg and then fly to the westward on down to Bloemfontein. Our last flight takes us to Table Mountain, with Cape Town and the Atlantic Ocean at its foot. We are at the end of

the continent, and have completed our fifty-two hundred miles through the air.

Those who know best the conditions in Africa believe that the establishment of a regular air service along the Cape-to-Cairo route will be difficult. During the rainy season dense fogs are common, making flying uncertain and dangerous, while at times the smoke from forest fires causes great trouble. On account of the rapid evaporation, the storage of gasoline in the tropical belt is extremely difficult. Sudden changes in atmospheric conditions form another serious danger; but with the development of wireless stations along the route, and the use of the radio telephone, aviators can be warned while in flight of the weather conditions ahead and shape their courses accordingly.

Meantime, that all-British line that Cecil Rhodes planned comes nearer to completion each year.

In thinking of the famous Cape-to-Cairo route most people consider it as a continuous railway trip, or as an iron track spanning Africa from south to north. This it will perhaps never be. We shall go by steam from Cairo to the Cape of Good Hope, but almost one third of the way will be over navigable rivers and lakes. This was Rhodes's idea, and it is also that of every practical engineer who has examined the country and its traffic possibilities.

The journey from Cairo to the Cape is now made by rail, boat, and ground transport. These overland gaps are the ones which will one day be filled with railways, but the water sections will remain as a part of the completed route.

The railroad from Cairo has been extended two hundred and forty miles south from Khartum to Sennar, on the

Blue Nile, where a great new dam, which is to furnish more water for irrigating Egypt and the Sudan, is now under construction. The British have also built a railway from Sennar west to El Obeid, in Khordofan. This line crosses the Blue Nile at Kosti. From Sennar, the fourteen hundred miles to Lake Albert is covered by Nile steamers and by ground transport, which may be automobile, horseback, or bullock wagon. From the southern shore of Lake Albert is another gap which must be covered with ground transport to gain the shores of Lake Victoria, and after Victoria is crossed by steamer, Lake Tanganyika must be reached overland. From Lake Tanganyika to Broken Hill is a gap of four hundred and fifty miles which will soon be bridged by railroad construction. From Broken Hill we have the railway to Cape Town. A railroad extends northward from Broken Hill to Bukama in the Congo copper-mining district of Katanga, but it does not fit into the scheme of an all-British steam route to Cairo.

Another important railway development, also the work of the British, resulted from the World War. The Turks had organized an army to capture control of the Suez Canal, and to meet this attack the British pushed a great expeditionary force into Palestine. They did this by building a swinging railroad bridge across the canal at Kantara and laying a railroad two hundred and fifty-six miles through the Sinai and Palestine deserts to Haifa. During these operations, Kantara, normally a small garrisoned railroad town, mostly sand and cinders, became the greatest military base in all history. Besides the soldiers, brought from all corners of the British Empire, the British organized the Egyptian Labour Corps, for which more

than twelve hundred thousand Egyptian natives were recruited. This vast army of workers built the railway, and kept the stream of men and supplies moving on to meet the attack of the Turks. The Egyptians did not like this service much better than the Children of Israel liked toiling without wages for the Pharaohs nearly four thousand years ago.

These operations resulted in the defeat of the Turks and saved the canal. Moreover, they linked Africa and Asia by rail and one may now go on comfortable cars all the way from Cairo to Constantinople, and on to Paris. In reality, three continents have been joined together by the Kantara bridge and the Palestine Military Railway. This new link in the chain of the world's railway systems was part of the Kaiser's dream of empire. But he had no part in making it come true, and it now adds to the glory and strength of the very nations he hoped to conquer.

The mails are carefully guarded on all trains, a soldier with rifle and sword always being present when the sacks are loaded or unloaded. Armed guards also travel with the mail on the Nile steamers.

Far up in the Sudan American engines are found pulling British trains, while the famous bridge at Atbara, which Kitchener said he must have in less time than the English could manufacture it, was made in the United States.

While the British have established first-class railroad service from Cairo and lower Egypt up into the Sudan, there also remain in this region some of the light military railways built during the wars with the Mahdi.

CHAPTER XX

KHARTUM

AFTER the intensely hot and dust-filled six-hundred-mile journey across the desert from Wady Halfa it is good to be here amid the palm gardens and the lime trees of Khartum. I am in the flourishing capital of the Sudan, once, and not so long ago at that, the centre of an exceedingly prosperous slave trade and later the scene of the massacre of General Gordon and of Kitchener's fierce fights with the Mohammedan fanatics.

Khartum lies at the junction of two of the chief rivers of North Africa, giving it navigable highways to Abyssinia and to the rich lands along the watershed of the Belgian Congo. It has railroads connecting it with the Mediterranean, and with the exception of one stretch of less than six hundred miles, where the cataracts are, it has the main stream of the Nile to give it cheap freight rates to Europe. It has opened a railroad to Suakim, on the Red Sea, and in time it will undoubtedly be one of the great stations on the principal route by steamer and rail from Cairo to the Cape.

I called upon the Governor of Khartum this afternoon and asked him to tell me the story of the city. Said he:

"The buildings which you see here are all new, but the town is older than some of the mushroom cities of the United States. It was born before Chicago, being founded by Mehemet Ali a century ago. It grew remarkably

fast, so that at ten years of age it was made the seat of the government of the Sudan and became an important commercial centre. It was here that Gordon made his effort to break up the slave trade and here that he was killed. He was butchered on the steps of a building on the site of the present Governor-General's palace. Then the Mahdist leader declared that Khartum should be wiped out. He destroyed all the houses and made the inhabitants come to his new capital, Omdurman, which he had laid out on the other side of the White Nile about five miles to the south. When the people left they tore off the roofs and pulled out the doors of their houses and carried them along to use in their new houses at Omdurman.

"After that, for years, and until Kitchener came, Khartum was nothing but a brick pile and a dust heap. Omdurman had swallowed up not only its whole population, but that of a great part of the Sudan; for the Khalifa forced the tribes to come there to live, in order that he might have their men ready for his army in times of war. The result was that Omdurman had more than a half million inhabitants while Khartum had none.

"Then we had the war with the Khalifa, whom we finally conquered," the Governor continued. "After we had reduced the greater part of Omdurman to ruins, we began planning the building of a great city. The idea at first was to force the people to move from Omdurman to Khartum, but it was finally decided that it would be far better to have a native city there, and to make this place the government and foreign centre, with a manufacturing and commercial town at Halfaya, or Khartum, North, on the northern bank of the Blue Nile.

"The Khartum of to-day was laid out after somewhat the same plan as your capital at Washington; at least the reasons that determined the plans were the same. As I recall it, Washington was plotted at about the time of the French Revolution by a French engineer. Major L'Enfant laid out the city so that it could be easily defended in case of a rebellion and at the same time be beautiful. For that reason the streets were made to cut one another at right angles with avenues running diagonally through them, forming squares and circles, where one cannon could command many streets. Lord Kitchener had the same idea as to Khartum. He directed his architects to make the streets wide, with several large squares, and to have the whole so arranged that guns placed at the chief crossings could command the whole city. The result is Khartum as you now see it.

"The town is laid out in three great sections, and all building plans must be submitted to the government architects before permits of construction can be issued. The section along the Nile is devoted to the government buildings and the residences of the officials and others who can afford good houses. Back of that there are streets where less pretentious houses may be built, while farther back still and more to the south is a third section of houses for natives. The town is so planned that it can grow along these lines, and we believe it will some day be one of the largest and most beautiful of the cities of interior Africa."

I have now been in Khartum over a week and find it most interesting. In coming to it, I rode for hours and hours through the sands and rocks of Nubia, and it was not until I was within a few miles of Halfaya that I saw

signs of vegetation. The train then entered a region of thorn bushes ten or fifteen feet high; farther on patches of grass bleached by the sun were to be seen, and closer still other evidences of cultivation. The Arabs were digging out the thorn bushes on the edge of the desert and stacking them up in piles for fuel. There were a few animals grazing on the scanty grass.

Out of such dull and cheerless desert surroundings rises a city of green. All along the river, for a distance of more than two miles, runs a wide avenue shaded by trees and backed by buildings and private houses in beautiful gardens. From one end of it to the other this avenue is a succession of parks. It begins with the botanical and zoölogical gardens, where all the trees of the tropical and sub-tropical regions grow luxuriantly and where one may see the soap tree, the monkey-bread tree, and other curious examples of Sudanese flora. There are several lions and tigers in the garden, and there is also a mighty giraffe which I photographed this afternoon as he was taking a bite out of a branch at the height of a two-story house.

Next to the zoölogical garden is the Grand Hotel, a long, bungalow-shaped structure shaded by date palms, while beyond are the two-story homes of many officials, all well shaded. The first public building on this avenue is the post and telegraph office. Beyond it are the offices of the Military Bureaus with public gardens behind them. Directly on the river and in front of a wonderful garden is the great white palace in which the Governor-General of the Sudan lives and has his offices. Farther along the avenue are the Sudan Club and the hospital. Away at the south rise the large buildings of the Gordon Memorial

College, with the British barracks at the end of the street. On the edge of the river are the inevitable *sakiehs* raising the water to the tune of their monotonous creakings. They start at seven o'clock every morning. Their wheels are never greased and as they move they screech and groan and sigh. There is one in front of the Grand Hotel which serves as my alarm clock, for sleep is murdered at the moment it begins.

In Khedive Avenue, which runs parallel with the embankment, is a statue by E. Onslow Ford, of General Gordon on an Indian camel. So far as I know this is the world's only camelestrian statue. It is a work of fine art and full of the spirit of the famous hero it represents.

The business parts of Khartum are on the streets back from the river. There is one great square devoted to the markets. This must cover ten or more acres, and the Abbas Square, a little farther west, in which the mosque stands, is fully twice as large. The business section has two banks and a large number of stores managed chiefly by Greeks. There are more Greeks here than any other foreigners, and next to them come the Italians, some of whom have important establishments. One of the biggest of all is the house of Angelo Capato, a man who might be called the Marshall Field of the Sudan, for he has a large business here, with branches all over the country and desert stores far up the Nile. The stores have covered porches in front of them or they face arcades which keep off the sun.

The mosque of Khartum is one of the most beautiful buildings in Africa. It is a great two-story structure of white stone with minarets rising high above it. The galleries of the minarets have a lacework of stone around

them and the towers are covered with Arabic carvings. The building is named after Khedive Abbas Hilmi who, I am told, furnished much of the money for its erection.

Khartum has also a big Coptic church as well as one built by the Church of England and the schools and chapels of the United Presbyterian Mission of our country. So, you see, notwithstanding its position on this far-away part of the globe, it has abundant religious facilities.

I have been interested in watching the women doing construction work here in Khartum. Wherever new houses and business blocks are going up, the masons and mechanics have their women helpers. The labourers come from all parts of the Sudan, so that the women of a half-dozen tribes may be working on the same building. The wages are far beyond those of the past, and, although they are still but a few cents a day, here in Central Africa they mean riches.

These women labourers are strapping black girls, straight and plump, and so lightly dressed that one can see all the outlines of their forms. Some have but a thin sheet of blue cotton wrapped loosely around the shoulders with another wound about the waist so that it falls to the feet. The upper garment is off half the time, leaving the girl bare to the waist. Her plump bust shows out in the bright sun as she raises her arms high to steady the load on her head. These African natives, both men and women, pull out all the hair on their bodies, going over them once a month for this purpose. This custom is common in many parts of the world. It is done among some of the Indians of the Amazon, among the Jewesses of Tunis, who are shaved from head to foot just before marriage, and among

the Moros of our Philippine Islands, who carry along little tweezers to jerk out the hairs.

The wages these women receive are pitifully low. Ten or fifteen cents a day is big money for a woman, while even a man can be hired for twenty cents or less. For such sums the women unload the stone boats on the Nile, wading out into the river and coming back up the banks with two or three great rocks piled high on their heads. They carry sand in baskets, and spread it over the stones on the highways, and sit down on the roadsides and break stones for macadamizing. They carry the mortar up the scaffolding to the masons, and quite an army of them is employed in bringing water in five-gallon kerosene oil cans from the Nile. Some of the streets are sprinkled with this water, and many of the gardens of Khartum are kept moist in this way. At the Grand Hotel we have a half-dozen women who carry water all day long to irrigate the garden. Some of the girls are tall. To-day I had a photograph taken of myself standing beside one who overtopped me some inches. She objected to my having her picture, and as she was a husky young negress it was for a time undecided whether I should succeed.

I have asked some questions here as to labour. The builders tell me it is almost impossible to get what they want, and that the more wages they pay the greater the danger of a labour famine. The trouble is that the natives will not work if they have money, and when wages are high they work so much the less. All they need is their food, and a family can live on five cents and less per day. The food consists chiefly of boiled dura or sorghum meal and the drink is a native beer which costs almost nothing. A man can get a suit of clothes for a dollar, while a woman

can be outfitted for less. When food is cheap, the prices of labour rise, and when it is dear, they fall. The native reasons that he ought to be paid more for his work when the food prices are low, for in such a case he can easily get food ahead, and why should he work at the ordinary wage when he has all he wants? When the food goes up the labourers need the work to pay for it and their competition brings wages down.

The British believe Khartum will some day be one of the largest and most beautiful cities of Africa. They have made along the river front a boulevard and park, in which are the government offices and the residences of officials and others.

From Khartum, where the Blue and the White Nile come together, navigable waterways extend into Abyssinia and the rich lands of the watershed of the Belgian Congo, while to the north flows the main stream of the Nile.

Founded only one hundred years ago, Khartum rapidly became a slave-trade centre but was utterly wiped out by the Mahdists who killed Gordon. Not until Kitchener came was the city built anew on modern plans.

CHAPTER XXI

EMPIRE BUILDING IN THE SUDAN

I AM just back from the palace at Khartum where I have had a long talk with Sir Francis Reginald Wingate, the Sirdar of the Egyptian army and the Governor-General of the Sudan. He is the ruler of a land one fourth as large as all Europe and four times the size of any country in it excepting Russia. He has great power and can do almost anything he likes with this country and people. One of the chief officers in the wars with the Mahdi and the Khalifa, he won decoration after decoration for his bravery and military services, and was in command of the operations which finally resulted in the death of the Khalifa. It was in that year that he became Sirdar, and since then he has been bringing order out of the chaos of this part of Africa. He has pacified the warring tribes, has turned their lances and guns into ploughshares and shepherds' crooks, and is now creating civilized conditions where before have been barbarism, injustice, slavery, and war. An explorer of note before he became Governor-General, he has his prospectors travelling through every part of this vast region, and is laying out and starting the railroad, canal, irrigation, and other projects which will open it up to trade and progressive development.

The Sirdar is now in his prime. He has seen perhaps fifty years of hard-working life, but he does not look over forty-five, and were it not that his hair and moustache are

mixed with silver, one would think him much younger. His face is free from wrinkles and his complexion rosy, his eyes are full of light, and his whole appearance indicates health and strength. A great part of his career has been spent in the saddle. He has not only travelled over most of Egypt and the Sudan, but has gone on diplomatic missions to Abyssinia. He spends a portion of every year travelling by boat or on camels through his far-away provinces, and has just recently returned from a long trip to Kordofan. He talks freely about his country, which he knows so well that what he says is of special interest.

During my conversations with His Excellency I asked him about the possibilities of the Sudan, reminding him that most people looked upon it as nothing more than a vast desert. He replied:*

"That idea comes largely from the desolate sands through which the railroad takes travellers on their way to Khartum. They have also read of the immense swamps of the Upper Nile, and, putting the two together, they look upon the country as only swamp and desert. The truth is the Sudan is an undeveloped empire so far as its natural resources are concerned. It is a land of many climates and of all sorts of soils. The desert stops not far from Khartum, beyond which is a region where the rainfall is sufficient for regular crops. Still farther south the country has more rain than is needed. In the west are great areas fitted for stock raising.

"Take, for instance, the country along the Abyssinian border and that which lies between the White and Blue

*Since this interview with Sir Reginald occurred he has retired from office at the end of a lifetime spent in the Sudan. He will always be considered one of the best authorities on that vast and comparatively unknown region, and his views, especially when expressed, as here, in the height of his activities, are of perennial value.

Niles. Those regions have been built up in the same manner as Egypt, and they contain all the rich fertilizing materials which have made the Lower Nile valley one of the great grain lands of the world. The only difference is that the Egyptian soil, by the cultivation and the watering of thousands of years, has been leached of its best fertilizing elements; while the soil of the Gezirah, as the region I have referred to is called, has hardly been touched. Indeed, the plain between the White and Blue Niles is so rich that, if water is put upon it, it will produce four or five crops every year, and that for many years in succession. We have millions of acres of such soil awaiting only the hand of man to bring them into the world's markets as live commercial factors."

"What kind of crops can be raised in that country, your Excellency?" I asked.

"Almost anything that is now produced in Egypt," was the reply. "The Gezirah is already growing a great deal of dura, or millet. It produces an excellent wheat and also maize. In fact, that plain is now the chief granary of this part of the world. It raises so much that, when the season is good, the crops are more than the people consume, so the grain is stored away in great pits. I have seen dura pits forty feet deep and about fifty feet in diameter. They are to be found about almost every village. At ordinary times they are kept full of grain for fear of a famine, but while the Mahdi reigned, his soldiers used to rob them. The result was that whole communities were wiped out by starvation."

"But if the bad years eat up the good ones, where is the Sudan to get its grain for export?" I inquired.

"That will come by irrigation and better transportation.

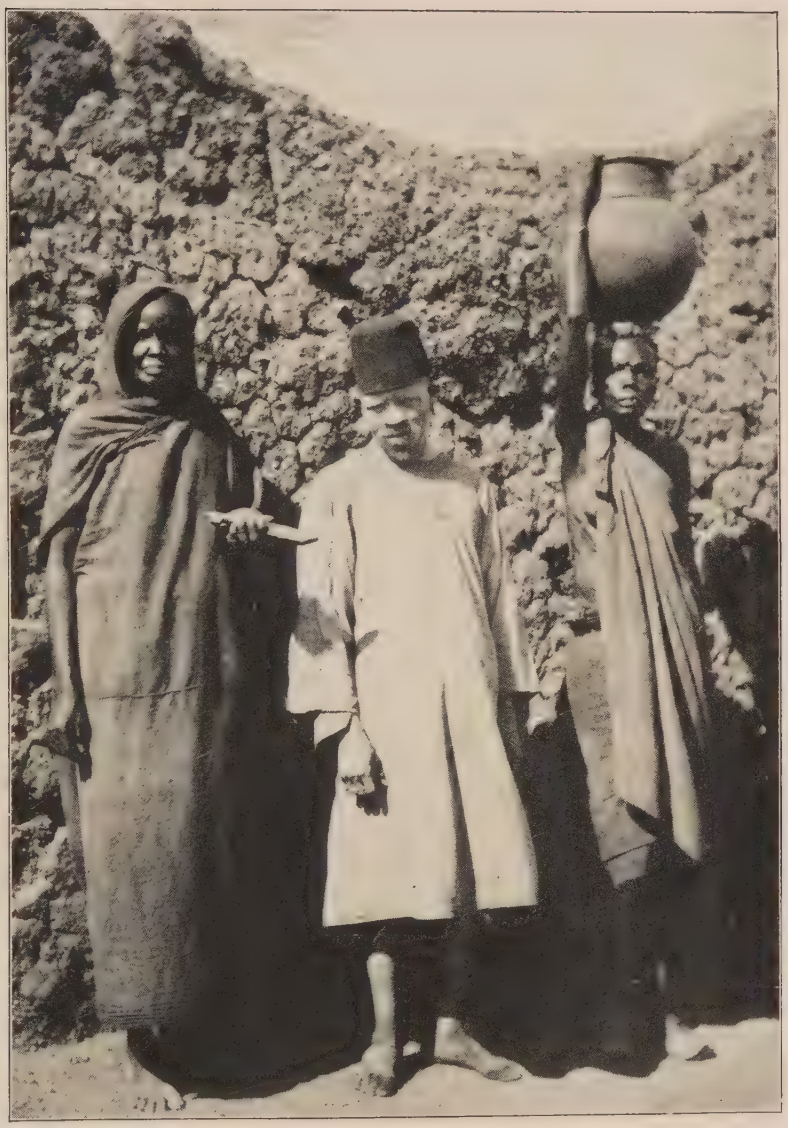
Until the Upper Nile irrigation projects can be put through the people must rely, as they do now, upon the rainfall, which is uncertain. When those plans have been carried out the country can be irrigated by the two Niles without diminishing the supply of water required for Egypt. Then the land will have water all the year round. Improved methods of cultivation will enormously increase the crops. At present the native merely walks over the ground after a rain and stirs it up with a stick while his wife or children follow behind dropping the seeds and covering them with their feet. Nothing more is done until two months later, when the crop is ready for reaping."

"How about cotton?"

"I see no reason why the Sudan should not eventually be one of the big cotton countries of the globe. We are experimenting with it in all the provinces and are meeting with success. The land between the White and Blue Niles might be made one great cotton plantation, and the quality of the crop would be excellent. We are now raising fine cotton on the Red Sea near Suakim, and the crop is a profitable one. Plantations are also being set out by foreigners near Khartum. The cotton raised is fully equal to the best Egyptian."

"But how about your labour, your Excellency; have you the workmen necessary to cultivate such crops?"

"That is a problem which only the future can solve," replied the Sirdar. "We have all kinds of natives here, representing the different stages of savagery and semi-civilization. While there are a great many tribes whose people can be taught to work, others will need many years of training before they can be made into such farmers as we have in Egypt and India. We have some who will



There is at least one white Negro in Africa. The man in the centre, who said both his parents were as black as the women beside him, is pure Sudanese, yet he has a fair skin, rosy cheeks, and flaxen hair.

Services at the Coptic Church at Khartum sometimes last five hours, while the worshippers stand barefooted on the cold floors. The Copts, direct descendants of the ancient Egyptians, have been Christians since St. Mark preached at Alexandria.

work only long enough to get food and supplies for their immediate needs and who, when a little ahead, will spend their time in dancing and drinking the native beer until they become poor again. We have also a large admixture of Arabs and other races who are of a far higher character and of whom we expect much."

"Do you see many changes in the condition of the natives since the British occupation?"

"Yes. They are doing far better than in the past. They wear more clothing, they have more wants, and are working to supply them. Formerly many went naked, and as there was no security of property and few wants, they had no incentives to save. When we came here the taxes were levied at the will of the rulers, so the rich native was sure to be persecuted. Now since the taxes are fairly levied, the people are learning that their savings will be respected. They are coming to have faith in us. Our first business was to make them realize that we intended to treat them fairly and honestly, and I believe we have succeeded. We had also to organize the country, so that it might be able to pay the expenses of its government. We are fast reaching that stage."

"Is your native population increasing?"

"Very rapidly," replied Sir Reginald. "I am surprised at the large number of children that have been born since we took possession of the Sudan. The provinces fairly swarm with little ones. During a recent trip through Kordofan I carried a lot of small coin with me to give to the children. The news of this travelled ahead, so as soon as we approached a village we would be met by the babies in force. Nearly every peasant woman came forward with a half dozen or more little naked blacks and browns

hanging about her, and the children ran out of the tents as we passed on the way. The Sudanese are naturally fond of children, especially so when times are good and conditions settled as they are now. They want as many children and grandchildren as the Lord will give them, and as most of the men have two or three wives, it is not an uncommon thing for a father to have several additions to his family per year."

"Your Excellency has been travelling on camel back through Kordofan. Is that country likely to be valuable in the future?"

"I do not see why it should not be," replied the Governor-General. "It is one of the stock-raising regions of this part of the world, producing a great number of cattle and camels. Much of the meat now used in Khartum comes from Kordofan, and camels are bred there for use throughout the Libyan and Nubian deserts. The southern half of the country, which is devoted to cattle, is inhabited by stock-raising people. Every tribe has its herds, and many tribes are nomadic, driving their stock from pasture to pasture. North of latitude thirteen, where the camel country begins, one finds camels by the thousands. That section seems to be especially adapted to them."

"What is the nature of the land west of Kordofan?"

"I suppose you mean Darfur. That country is a hilly land traversed by a mountain range furnishing numerous streams. It is well populated, and was for a long time a centre of the slave trade. The natives there are comparatively quiet at present, although every now and then a war breaks out between some of the tribes. This is true, too, in Kordofan. The people are brave and proud, and they have frequent vendettas."

CHAPTER XXII

WHY GENERAL GORDON HAD NO FEAR

ONE of my talks with Sir Francis Reginald Wingate was of a more personal nature dealing with some of the events in which he was an historic figure. I had asked His Excellency if he would not some day write a new book on the Sudan. He wrote "Mahdism and the Egyptian Sudan" some years ago; and a few years later published a work entitled "Ten Years' Captivity in the Mahdi's Camp." He also translated and edited Slatin Pasha's "Fire and Sword in the Sudan" and for years his life has been a part of the history of the country and his experiences such that no man living can tell about it better than he. The Sirdar replied:

"I may write another book some day. I have kept notes of things which I have observed and which have occurred from time to time, and putting them together may give me occupation when I retire. At present my chief interest is in the development of the country, and I am too much occupied with that and with my duties here to find any time for literary work."

Afterward our conversation turned to the conditions which prevailed here while the Mahdi was waging war against the English. Sir Reginald, then General Wingate, was one of the officers in command of the British troops and is full of vivid stories of those terrible times. As we talked

we were standing on the portico jutting out from the second story of the government palace. We were looking down the Nile and in plain view of the little island of Tuti over the way. General Wingate went on to tell a story of General Gordon's bravery and absolute lack of fear:

"It was on this site that Gordon had his headquarters during a siege of the Mahdi. He lived in a rough building with windows opening toward that island, upon which the enemy had an encampment. It was his custom of an evening to sit in his room facing the river and write in his diary. The Mahdists saw his light and shot at it again and again but, notwithstanding this, General Gordon did not change his place for writing. His friends remonstrated and the citizens of Khartum sent in a petition to him either to write in the back of the house or to hide his light behind a screen. This petition was brought in by a delegation from the town, which had assembled in front of the headquarters awaiting an answer. As they stood there, lights were put in every front window and they saw General Gordon go from window to window making himself, as they thought, a fair mark for the Dervishes on the island. At last he came out and standing in the full blaze of the light said:

"'Gentlemen, there is an old story that when the Lord made mankind He did so with two great piles of material before Him. One of the piles was composed of the clay of which man is made and the other of the fear that often makes one less than a man. As the Lord worked, He took up a handful of clay, shaped it into a human form, and then sprinkled it over with a handful from the pile of fear. And so He went on making man after man until at last He took up the stuff of which He made me. There was

In the dry Upper Nile valley piled-up grain awaits unprotected the boats which will distribute it along the river. The provinces of Darfur and Kordofan alone can produce enough durra to feed the entire Sudan.

No matter how far up the Nile or how deep in the desert they live, "*backsheesh*" is the cry of the children of Egypt and the Sudan. Young and old alike have learned the trick of asking a fee for posing.

British experiments in cotton culture in the Sudan have been most successful and the quality of the product compares favourably with Egyptian varieties. Irrigation projects under construction will shortly add 100,000 acres to the cotton-growing area.

The chief public building in Khartum is the Sirdar's palace, built by Kitchener on the site of Gordon's murder. Over it float British and Egyptian flags and two sentries guard its door, one British, one Sudanese

plenty of clay for my body but when He looked about for fear with which to sprinkle it, He found that the pile of fear had all been used up, so the result is I do not know what fear is.'"

General Gordon's bravery was far beyond that of other world heroes. He fought here until the last. When the Arabs finally overcame his troops and entered his palace, he sternly demanded of them where their master was. They replied by plunging their spears into his body. As he fell, they dragged him down the steps and cut off his head to be sent to the Mahdi. His body was left to the mercy of the fanatics, who rushed forward by thousands to dip their swords and spears in his blood. They fairly cut it to pieces, and the blood, which had stained the steps and walls of the palace, remained there until the Khalifa decided to make that place a dwelling for his harem and had it washed away.

The British have done all they could to carry out Gordon's mission in the Sudan; that is, to break up slavery. This region was once one of the chief slave markets of the continent. The poor wretches were brought by the thousands from Central Africa to Khartum and Omdurman, and taken thence down to Egypt. Before the British rule there were military stations in different parts of the country, which became centres of the trade, and the White Nile was a famous slave route. Later on the Arabs raided the natives of Central Africa and sent up their captives to Khartum. The trade was somewhat checked while Gordon ruled, but it broke out again under the Mahdi. When the British took hold, Omdurman was one of the chief markets, slaves being brought in in droves from all parts of the country. Since then the buying and

selling of the blacks has been stopped, as far as possible, but it is still carried on in some of the provinces, and it will be a long time before it can be absolutely eradicated. Sixty-seven slave dealers were captured and tried not so long ago. Fifty-eight were convicted, more than fifty receiving sentences of from one to seven years each.

While I was at Asyut, Dr. Alexander, president of the Training College there, told me how a poor Swiss boy broke up the slave trade of Upper Egypt. Said he: "This incident occurred just before the British occupation. The boy, whose name was Roth, got the idea that it was his mission to aid in abolishing slavery, and that his field lay in the Sudan. He had no money, but he worked his way to Alexandria and thence up the Nile to Asyut, landing here without a cent. He applied for work at the mission schools, telling us his plans, and we finally arranged for him to teach French. While doing so he studied Arabic and went out through the country to learn all he could about slavery. He spent his vacations living with the people, travelling about and visiting the villages. It was then contrary to law to sell slaves in Egypt, but Roth learned that the trade was going on, and that caravans were bringing them from the Sudan into Upper Egypt. They were sent from here to Tunis and Tripoli and thence to Constantinople. One day he came into the mission and said that a big slave caravan was encamped outside Asyut, and that the men hid their prisoners in caves during the day and sold them at night. He begged me to go with him to the governor and demand that they be punished. I did go, but was not able to do anything.

"After this," continued Dr. Alexander, "Roth despaired somewhat, but said he intended to go to Cairo to get the

English consul-general to help him. He did so and convinced the consul-general that his story was true. The two demanded of Riaz Pasha, then foreign minister, that the sale of slaves be stopped. Since Roth had the English Government behind him, the Egyptian government had to respect him. Giving him a company of two hundred soldiers, they told him to go back to Asyut and capture the caravan. It was probably their intention to notify the slave dealers in time, so they could get away. But Roth defeated this move. He stopped his special train outside the town, divided his company into two bands, surrounded the caravan and took the traders and the sixty-seven slaves they had with them. He brought the poor creatures here to the mission school saying he wanted me to hold them as the Egyptians would not dare to take them from under the American flag.

"Shortly after this there came a message from the governor of the province ordering that the slaves be given up. The messengers were backed by soldiers, but nevertheless I refused, declaring it was impossible on account of the absence of Dr. Hogg, the superintendent of the mission. The next day, when Dr. Hogg arrived, the governor sent for him and abused him for not giving up the slaves. Thereupon Dr. Hogg charged him with wanting to evade the law, and told him that if Asyut had any respect for the law or had a governor who was anything of a man, the caravan would have been arrested sooner and the owners punished. He demanded that this be done, and as a result the slave dealers and slaves were taken to Cairo to be tried there. The government of Egypt, not daring to whitewash the transaction, was forced to dismiss the governor and punish the slave dealers. Roth was

afterward appointed an agent of the Egyptian government to keep down the slave trade. He came to the Sudan and carried on his work there in connection with Gordon and Slatin Pasha. Slatin speaks of him in his book entitled Fire and Sword in the Sudan. He died while fighting the trade there."

CHAPTER XXIII

OMDURMAN, STRONGHOLD OF THE MAHDI

ONE of the queerest cities I have ever visited is Omdurman, once the capital of the Mahdi and to-day the great native commercial centre of the Sudan. Omdurman stretches for more than six miles along the Nile at the point where the Blue Nile flows in from the distant Abyssinian hills. Opposite the city is Tuti Island, while beyond the island on the farther bank of the White Nile is Khartum. Founded by the Mahdi, or the Mohammedan Messiah, and the scene of the most atrocious cruelties and extravagances of the Khalifa who succeeded him, Omdurman once contained about one million of African Sudanese. It was then a great military camp, composed of one hundred thousand mud houses and inhabited by tribes from all parts of the million square miles embraced in the realm of that savage ruler. The Khalifa forced the people to come here to live that he might have their services in time of war, allowing them to go home only to cultivate and harvest their crops, which they were obliged to bring back for sale. He made Omdurman his seat of government, and he had his own residence here inside a great wall of sun-dried brick which enclosed about sixty acres, and in which was an open-air mosque of ten acres or more. Here he had his palace and here he kept his four hundred wives. Just outside the city he

fought the great battle which ended in his downfall and the destruction of his capital.

According to Mohammedan tradition, the Prophet said that there would arise among the Faithful a sort of Messiah, or Mahdi, which means in Arabic "he who is guided aright." Mohammed Ahmed, later known as the Mahdi, claimed to be such a leader, and so he founded the empire which lasted until the Battle of Omdurman. He got the people to believe he had been appointed Mahdi by God, and that he had been taken by the Prophet himself into the presence of the apostles and saints, and by them commanded to cleanse and purify the Mohammedan religion.

He did anything, however, but practise what he preached. By the Koran, smoking and drinking are strictly prohibited, and extravagance is frowned upon, but in the height of his power the Mahdi and his chiefs lived lives of the most horrible drunkenness, extravagance, and vice. Mohammed Ahmed is described by Slatin Pasha, who was for years a prisoner of the Mahdists in Omdurman, as a tall, broad-shouldered, powerfully built man, with a black beard and the usual three scars on each cheek. He had the V-shaped gap between his two front teeth which the Sudanese consider a sign of good luck and which is said to have been the cause of his popularity among women. Their name for him was Abu Falja, "the man with the separated teeth." His beautifully washed woollen garments were always scented with a mixture of musk, sandalwood, and attar of roses. This perfume, which was known as the "odour of the Mahdi," was supposed to equal, if not surpass, that of the dwellers of Paradise.

OMDURMAN, STRONGHOLD OF THE MAHDI

After the siege and capture of Khartum the people who had held out against the Mahdists were put to the most unspeakable tortures, all of them, that is, except the young women and girls. These were reserved for the Mahdi's harem. For weeks after the battle there went on in his camp at Omdurman the business of choosing from the fairest for his own establishment, while the ones he rejected were turned over to his chief favourites and advisers. After Mohammed Ahmed's death, which occurred close on the heels of his victory, the Khalifa had the Mahdi's widows and all the women of his harem imprisoned in a high-walled compound guarded by eunuchs. None was allowed to marry or go out into the world again.

The Omdurman of the present, which is laid on practically the same lines as that of the past, covers almost the same ground, although it has much fewer people. During my trip of to-day I climbed to the top of the old palace of the Khalifa, and took a look over the city.

The houses stretch along the Nile for seven or eight miles, and the water front is fringed with a thicket of boats. Some of the town is on the main stream, and reaches out from the river in all directions. It is a city of mud in every sense of the word. Of its many thousand houses there are not a score which are of more than one story, and you can count on your fingers the houses made of burnt brick. When I first rode through it I asked my guide if the holes in the walls had been made by cannon-balls at the time of the fighting. "Why, man," he replied, "those are the windows." Most of the houses are flat roofed, with drain pipes extending out over the street so that when it rains the water pours down on the necks of the passers-by. The one-story mud houses have

mud walls about them, and the mud stores face streets paved only with mud. The walls of the vast inclosure of the Khalifa are made of mud bricks, while the houses inside, which now form the quarters of the Anglo-Egyptian soldiers and officers, are of sun-baked dirt.

The Khalifa was so afraid of being assassinated that he had all the houses near his palace torn down, shut himself up in his walled inclosure, and kept at his side a great bodyguard, to which he was forever adding more soldiers. His special apartments in the palace were considered the last word in luxury. They had beautiful curtains and carpets of silk and actually boasted big brass beds with mosquito nets, spoils from the European houses at Khartum.

Standing on the Khalifa's palace, one can follow many of the streets with one's eye. Some of them are of great width, but the majority are narrow and winding. The whole city, in fact, is a labyrinth cut up by new avenues laid out by the British, with the holy buildings and the Khalifa's old government structures in the middle. But the British are improving conditions in Omdurman, and have elaborate plans for its development, including a fine park in the centre of the city.

Each of the towns of the Sudan has a British official to rule it; but under each such governor is a sub-governor who must be a native Egyptian. This man is called the *mamour* and is the real executive as far as carrying out the orders of the government is concerned. He represents the natives, and understands all about them and their ways. The *mamour* at Omdurman is an ex-cavalry officer of the army of the Khedive who fought with the British in their wars against the Khalifa. He speaks

Being followers of the Prophet, the Bisharin consider a difference of fifty years in ages no bar to matrimony. This girl wife probably spent a whole day in straightening out her kinky hair with a mixture of grease and clay, and adorning it with beads.

Omdurman, which once had a population of a million, is a strange city of mud. The houses and stores are one-story flat-roofed buildings with drain pipes extending out over the street that drip on the passers-by when it rains.

Within sight of the British and their civilization, the Sudanese blacks live miserably, crowded into their burrow-like mud huts, possessing only a few pots and bowls and the sheets of calico in which many of the women wrap themselves.

English well, and as he understands both Turkish and Arabic, he was able to tell me all about the city as we went through.

I came down the Blue Nile from Khartum in a skiff. The distance is about five miles, but we had to tack back and forth all the way, so that the trip took over two hours. The *mamour* met me on landing. He had a good donkey for me, and we spent the whole day in going through the city, making notes, and taking the photographs which now lie before me.

The people are stranger than any I have ever seen so far in my African travels. They come from all parts of the Sudan and represent forty or fifty-odd tribes. Some of the faces are black, some are dark brown,and others are a rich cream colour. One of the queerest men I met during my journey was an African with a complexion as rosy as that of a tow-headed American baby and hair quite as white. He was a water carrier, dressed in a red cap and long gown. He had two great cans on the ends of a pole which rested on his shoulder, and was trotting through the streets carrying water from one of the wells to his Sudanese customers. His feet and hands, which were bare, were as white as my own. Stopping him, I made him lift his red fez to see whether his hair was white from age. It was flaxen, however, rather than silver, and he told me that his years numbered only twenty-five. The *mamour*, talking with him in Arabic, learned that he was a pure Sudanese, coming from one of the provinces near the watershed of the Congo. He said that his parents were jet-black but that many men of his colour lived in the region from whence he came. I stood him up against the mud wall in the street with two Sudanese women, each

blacker than the ink with which this paper is printed, and made their photographs. The man did not like this at first, but when at the close I gave him a coin worth about twenty-five cents he salaamed to the ground and went away happy.

I am surprised to see how many of these Sudanese have scars on their faces and bodies. Nearly every other man I meet has the marks of great gashes on his cheeks, forehead, or breast, and some of the women are scarred so as to give the idea that terrible brutalities have been perpetrated upon them. As a rule, however, these scars have been self-inflicted. They are to show the tribe and family to which their owners belong. The *mamour* tells me that every tribe has its own special cut, and that he can tell just where a man comes from by such marks. The scars are of all shapes. Sometimes a cheek will have three parallel gashes, at another time you will notice that the cuts are crossed, while at others they look like a Chinese puzzle.

The dress of the people is strange. Those of the better classes wear long gowns, being clad not unlike the Egyptians. Many of the poor are almost naked, and the boys and girls often go about with only a belt of strings around the waist. The strings, which are like tassels, fall to the middle of the thigh. Very small children wear nothing whatever.

A number of the women wear no clothing above the waist, yet they do not seem to feel that they are immodest. I saw one near the ferry as I landed this morning. She was a good-looking girl about eighteen, as black as oiled ebony, as straight as an arrow, and as plump as a partridge. She was standing outside a mud hut shaking a sieve con-

taining sesame seed. She held the sieve with both hands high up over her head so that the wind might blow away the chaff as the seed fell to the ground. She was naked to the waist, and her pose was almost exactly that of the famed "Vestal Virgin" in the Corcoran Art Gallery at Washington.

Omdurman is the business centre of the Sudan. Goods are sent from here to all parts of the country, and grain, gum arabic, ostrich feathers, ivory, and native cotton are brought in for sale. The town has one hundred restaurants, twenty coffee houses, and three hundred wells. It has markets of various kinds, and there are long streets of bazaars or stores in which each trade has its own section, many of the articles sold being made on the spot. One of the most interesting places is the woman's market. This consists of a vast number of mat tents or shelters under each of which a woman sits with her wares piled about her. She may have vegetables, grain, or fowls, or articles of native cloth and other things made by the people. The women have the monopoly of the sales here. Men may come and buy, but they cannot peddle anything within the women's precincts nor can they open stands there. I understand that the women are shrewd traders. Their markets cover several acres and were thronged with black and brown natives as the *mamour* and I went through.

Not far from the market I came into the great ten-acre square upon which centre the streets of the stores. There are a number of restaurants facing it. In one corner there is a cattle market where donkeys, camels, and horses are sold. The sales are under the government, to the extent that an animal must be sold there if a good

title is to go with it. If the transfer is made elsewhere the terms of the bargain may be questioned, so the traders come to the square to do their buying and selling.

It is strange to have shops that sell money. I do not mean stock exchanges or banks, but real stores with money on the counters, stacked up in bundles, or laid away in piles on the shelves. That is what they have in Omdurman. There are caravans going out from here to all parts of north central Africa, and before one starts away it must have the right currency for the journey. In financial matters these people are not far from the Dark Ages. Many of the tribes do not know what coinage means; they use neither copper, silver, nor gold, and one of our dollars would be worth nothing to them. Among many of the people brass wire and beads are the only currency. Strange to say, every locality has its own style of beads, and its favourite wire. If blue beads are popular you can buy nothing with red ones, while if the people want beads of metal it is useless to offer them glass.

In some sections cloth is used as money; in others salt is the medium of exchange. The salt is moulded or cut out of the rocks in sticks, and so many sticks will buy a cow or a camel. The owner of one of the largest money stores of the Sudan is a Syrian, whose shop is not far from the great market. He told me that he would be glad to outfit me if I went into the wilds. I priced some of his beads. Those made of amber were especially costly. He had one string of amber lumps, five in number. Each bead was the size of a black walnut, and he asked for the string the equivalent of about fifteen American dollars. The string will be worn around some woman's bare waist, and may form the whole wardrobe of the maiden who gets it.

Not far from this bead money establishment the *mamour* and I entered the street of the silversmiths. This contains many shops in which black men and boys are busy making the barbaric ornaments of the Sudan. Jewellery is the savings bank of this region, and many of the articles are of pure silver and pure gold. Some are very heavy. I priced rings of silver worth five dollars apiece and handled a pair of gold earrings which the jeweller said were worth sixty dollars. The earrings were each as big around as a coffee cup, and about as thick as a lead pencil at the place where they are fastened into the ear. The man who had them for sale was barefooted, and wore a long white gown and a cap of white cotton. His whole dress could not have cost more than ten dollars. He was a black, and he had half-a-dozen black boys and men working away in his shop. Each smith sat on the ground before a little anvil about eight inches high and six inches wide, and pounded at the silver or gold object he was making.

In another shop I saw them making silver anklets as thick as my thumb, while in another they were turning out silver filigree work as fine as any from Genoa or Bangkok. The *mamour* asked two of the jewellers to bring their anvils out in the sun in order that I might photograph them and they kindly complied.

A little farther on we entered the shoe bazaar, where scores of merchants were selling red leather slippers turned up at the toes, and in a court not far away we found merchants selling hides and leather fresh from the tanneries. They were salting the hides in the square, and laying them out in the sun to dry.

During my stay in this section I bought some ostrich feathers of a merchant who sold nothing else. He had a

large stock and his prices were fixed. My feathers cost me about two dollars apiece, but they are the long white plumes of the wild ostrich, which are far finer than any of those from South Africa, where the birds are reared upon farms.

In the Manchester bazaar I found them selling cottons of many kinds and calicoes of gay patterns. There were but few American goods among them, the chief importations being from England and Germany. I saw some American sewing machines in the bazaar of the tailors, and I understand that they are generally used throughout the Nile valley.

A good deal of cotton is being grown throughout the Sudan nowadays and there is a whole street in Omdurman devoted to the manufacture and sale of the native product. This market at Omdurman serves a large district beyond the city, and consists of many little sheds covered with mats facing a dirt road. It is situated not far from the centre of the city, and there are several thousand acres of mud huts reaching out on all sides of it. Both the sheds and the streets are filled with cotton. It is brought in in bags of matting, and sold just as it is when picked from the plants. The samples are displayed in flat, round baskets, each of which holds perhaps a bushel; and when carried away it is put up in bags and not in bales. A great part of it goes to the native weavers, who turn it into cloth, using the smallest factories one can imagine.

Not far from the street where the cotton is sold I found one of these tiny factories. The establishment consisted of a half-dozen mud huts, shut off from the street by a mud wall, which, with the huts, formed a court. In the court a dozen black-skinned women were sitting on mats on the

ground, ginning and spinning, while the weaving went on in the huts at the back. The gin was somewhat like a clothes wringer save that the rolls were about as big around as the ordinary candle, and the whole machine was so small that it could have fitted into a peck measure. One woman turned the machine while another put in the cotton and picked out the seeds as they failed to go through. Near the gin sat two women who were snapping the lint with bowstrings to separate the fibres, and farther over there were a half-dozen others, sitting cross-legged, and spinning the lint into yarn by hand.

I went to the mud huts at the back to look in at the weavers. They were black boys and men, who sat before rude looms on the edge of holes in the ground. The looms were so made that they could be worked with the feet, the shuttles being thrown back and forth by hand. The latter moved through the cloth with a whistling noise, which was about the only sound to be heard. The cloth turned out is very good. It is well woven and soft, and brings good prices. Its wearing qualities are better than those of the Manchester and American cottons. I asked what wages the boy weavers received, and was told ten cents a day.

A large part of the grain of the Upper Sudan comes down the Blue and White Niles to Omdurman. The grain markets are close to the river and since there is no rain here at this time of the year, there is no need for warehouses or sheds. The grain is poured out on the hard ground in great piles and left there until sold. If you will imagine several hundred little mountains of white or red sand with wooden measures of various sizes lying at their feet or stuck into their sloping sides, you may have

some idea of this Central African grain market. You must add the tents of canvas or the mat shelters in which the native merchants stay while waiting for their customers, as well as a crowd of black-skinned, white-gowned men and women moving about sampling the wares and buying or selling.

The merchants watch the grain all day, and if they are forced to go away at nightfall they smooth the hills out and make cabalistic marks upon them so that they can easily tell if their property has been disturbed during their absence. The most common grains sold here are wheat, barley, and dura. The last named is ground to a flour either in hand mills or between stones moved about by bullocks or camels, and is eaten in the shape of round loaves of about the circumference of a tea plate and perhaps two inches thick. The wheat is of the macaroni variety, which grows well in these dry regions wherever irrigation is possible.

Speaking of the flour of the Sudan, I visited one of the largest milling establishments of the country during my stay in Omdurman. The owner is among the richest and most influential of the Sudanese. He is an emir, and as such is a leading citizen of the town. His mills were in a great mud-walled compound, which contained also his garden and home. The garden was irrigated by a well, and upon entering it I saw two black slave girls turning the wheels which furnished the water supply.

The mills were three in number. Each was in a mud stable-like one-story building just large enough to hold the millstones and the track for the animals which turned them. The stones were similar to the old-fashioned grinding machines of our own country. They rested one

The Shilouks are among the most powerful Sudanese tribes. The men are usually over six feet tall and well formed. They stiffen their hair with grease and clay and then cut it into fantastic shapes much as a privet hedge is trimmed.

When the Khalifa ruled he feared education and had all the books in his dominions destroyed. Hence not one Sudanese in a hundred can read and write. But the natives respect learning and those at Gordon College are good students.

upon the other and were so made that the grain flowed from a hopper on to the top stone. The motive power for each mill was a blindfolded camel, who moved around in a circle, turning the top stone. The camels were driven by black boys, who sat on the bars of the mills and rode there as they whipped them along. The flour so ground was fine. Picking up a handful, I tasted it and found it quite good.

CHAPTER XXIV

GORDON COLLEGE AND THE WELLCOME LABORATORIES

AWAY up the Nile valley, so far from the Mediterranean that it took me four days by steamship and railroad to reach it, almost within a stone's throw of where whole tribes are going naked, and near the site of what was one of the slave centres of Africa, the English have built up a school that is turning out native teachers and judges, government clerks and bookkeepers, mechanics of all sorts, and within certain limits, civil engineers. It has already several acres of college buildings, including large dormitories, well equipped classrooms, a library, a museum, and one of the most remarkable research laboratories of the world.

I refer to Gordon College, which was founded just after the Battle of Omdurman and named in honour of the great general who was killed in sight of where it now stands. The idea was suggested by Lord Kitchener, and the money was contributed by the people of England. The amount raised was seven hundred thousand dollars, to which has been added the munificent gift of Mr. Henry S. Wellcome, an American, who has established the famous Wellcome Laboratory as a part of this institution.

It was through a note of introduction from Sir Reginald Wingate to Dr. James Currie, the president of the college, that I was taken through it and given an insight into its workings and possibilities. The institution stands on the

bank of the Blue Nile at the southern end of Khartum, between the British barracks and the palace of the Sirdar. It is a handsome structure of dark red brick of Moorish architecture, built around three sides of a square, with the front facing the river. At the back are beautiful gardens and an experiment plantation where Dr. Currie is testing whether tea and certain other shrubs can be successfully grown.

The college building is of two stories with a tower over the centre. About the inside run wide corridors, or galleries, separated from the gardens by great columns forming cloisters where the students walk between their hours of recitation and study. In the wing at the left of the entrance are the laboratories, museum, and libraries, while in the front and in the wing at the right are the many classrooms which, during my stay, were filled with students.

After I had chatted for a time with Dr. Currie about the college we took a walk through it, visiting the various rooms. I found the college has something like three hundred students, ranging in age from ten to eighteen years and over. The students come from every part of the Sudan. They are of all colours, some having faces as white as our own, while others are the deepest and shiniest of stove-black. Many of them bear gashes and scars, denoting the tribe to which they belong, so that could we read the "trade-marks" we should find that their homes are located in all parts of the regions tapped by the Blue and White Niles. I saw some who came from the province of the Bahr el Ghazal, far up on the edge of the Belgian Congo. Others were from villages in Fashoda, near the River Sobat, while yet others came from the borders of

Abyssinia and from the regions along the Red Sea. Quite a number were the sons of the richer chiefs of Kordofan and Darfur, and not a few came from Dongola and Berber. Some of the boys were dressed in the fezzes and gowns of Egypt, others wore the white turbans and long robes of the people of Central Africa. Among them were Coptic and Mohammedan Egyptians, some few Bedouins, and here and there a Negro.

Many of the students have features like ours. Their noses are straight, their lips are thin, and their hair is not kinky, although they are black. Such boys are not Negroes, but the descendants of people from Arabia. Their ancestors had reached a high degree of civilization during the Middle Ages when the Arabic schools and universities were noted over the world.

The college is divided into three departments. The first, which is for the sons of sheiks, is devoted to the training of teachers for the Mohammedan schools and of judges and other officials for the Mohammedan courts. Following their usual colonial policy, the British are governing the Sudan as far as possible through the natives. They respect the native religions and the native language, therefore the instruction in this part of the college is altogether in Arabic. The students write all their exercises in Arabic and take their dictation in that tongue. Along with other subjects the students are taught the Koran and the Koranic law—and they are well grounded in the Mohammedan religion, especially as it bears upon the government of the people. The students of this department are fine-looking fellows, dressed almost uniformly in turbans and gowns, and have the aristocratic bearing which shows them to be the sons of chiefs.

The second department of the college is filled by those who hope to get minor appointments under the government or who want a general education to fit themselves for business and citizenship. In this department both English and Arabic are taught. Many of the boys are young. In one classroom I found a score of brown- and black-faced pupils, none of them over twelve years of age, learning to write English. They stood up as I entered in company with the president of the college, and rose to their feet again as we left. In this college surveying is taught. I was shown some excellent mechanical drawings, and some plans worked up from field notes. These were, of course, in the higher classes. The education is thorough and a boy can get a training that will fit him for almost any branch of life and for any profession which can be followed in the Sudan.

I was especially interested in the manual-training school, which is well equipped, with blacksmith and carpenter shops. I found a score or so of young Arabs making various things of wrought iron. They were turning out fences and ornamental iron gates. In the carpenter shops they were making library cases and other furniture and learning about house building and finishing. There are also machine shops where the students work at lathes. Every workshop is under the charge of an English professor who is a practical mechanic, and the boys are given such instruction that as soon as they are graduated they can find places on the plantations of the Sudan. Indeed, the demand for such workers is far in excess of the supply.

The natives of the Sudan are illiterate. The Mahdi and the Khalifa discouraged learning of all kinds, because they knew that the educated people would repudiate the doc-

trines upon which their government was founded. During his rule over the Sudan the Khalifa ordered that all books should be destroyed. He had no schools worthy of the name, and as a result not one Sudanese in a hundred can read and write. The officials say it is useless to post up government proclamations unless they station a man beside each one to read it out to the passers-by. At the same time the natives respect learning. They think that anything written must be true, so that swindlers sometimes go about and extort money by showing documents which they claim are orders to pay issued by the government.

The British are doing all they can to change these conditions. They are trying to educate the people, and are gradually establishing higher primary schools. Most of the schools are connected with the mosques and teach little more than reading and writing. The others give the rudiments of an education along western lines, while the higher primary schools teach English, mathematics, drawing, and other branches as well.

I went through a higher primary school with the Egyptian governor of Omdurman. It consisted of many one-story structures built around a walled inclosure. Each building is a schoolroom. The boys study at desks just like those used by our schoolboys at home, and have the same kind of modern classroom equipment. The students are of all ages, from boys of six learning to read to young men of eighteen or twenty ready to graduate. I heard some of the latter recite in English, and they seemed to me quite as bright as our boys at home. In one room I heard the recitation of the scene from "William Tell," in which Gessler makes the Swiss hero shoot the apple from his boy's head. Four black

boys took part in the dialogue. They declaimed in English, and although they had an Arabic accent they recited with wonderful feeling and with a full appreciation of the sentiment of the story. In another building I met some of the sons of the sheiks and photographed them out in the open. The pupils of all the schools are polite, and their natural ability is much above that of the African natives who live farther south.

But to return to the Wellcome Laboratory. Mr. Henry S. Wellcome is a rich Philadelphian, a member of the famous firm of Burroughs & Wellcome, manufacturing chemists and druggists of London. This firm makes a special study of tropical diseases and tropical medicines. A part of its business is outfitting missionaries and exploring parties. It furnished to Henry M. Stanley and others their medical supplies for travel throughout the world. It was probably through the study of such matters that Mr. Wellcome became interested in the Sudan and was induced to furnish, equip, and sustain this great laboratory. The objects of the institution are to promote the study of tropical disorders, especially those of man and beast peculiar to the Sudan, as well as to render assistance to the health officers and the civil and military hospitals. The laboratory experts are carrying on investigations regarding the poisons used by the natives and the chemical and bacteriological condition of the waters. They are also making studies of foodstuffs and sanitary improvements. They are testing and assaying the various minerals and are looking up all matters relating to the industrial development of the country.

The main offices of the laboratory are in the college, but

its explorers are sent out in every direction to make all sorts of researches. They are studying the mosquitoes of the country and are investigating the tsetse fly and other pests. Among other evils they are fighting the sleeping sickness, that horrible disease communicated by the tsetse fly which has killed its thousands throughout Central Africa. They are trying to rout the boll weevil and other insects which ruin the crops, and they are aiding the Cancer Research Fund and the Carnegie Institute in their inquiries. I have met a number of the scientists connected with this institution and I find them able men. They tell me that the Sudan has almost every noxious insect and pest known to man. It has worms and weevils which affect the cotton crop, and it has mosquitoes which carry malaria and which would carry yellow fever if they were once inoculated by feeding upon a yellow-fever patient. Indeed, the stegomyia, or yellow-fever mosquito, swarms here, and if one of them should be impregnated with these disease germs it might start an endless chain of the scourge which could hardly be broken.

The chemists here tell me that one of the principal money crops of this part of the world is gum arabic. We know this gum chiefly in connection with mucilage, but it is also widely used in the arts. It is employed for making water colours and certain kinds of inks as well as in dyeing and finishing silks and other fabrics. Some of the better grades are used in confectionery, and the pearly teeth of many an American girl have done their work in the chewing of this exudation of the trees of the Sudan. The gum, which comes from the acacia tree, is said to be due to a microbe which feeds upon the sap and causes the gum to ooze out on the bark in the form of tears when

In each of the workshops an English teacher who is a practical mechanic gives the boys such instruction that on graduation they immediately find places on the plantations where the demand for them is in excess of the supply.

Immediately after the death of Gordon, generous contributions were collected by Kitchener for the Gordon Memorial College at Khartum. Here Egyptians, Arabs, Syrians, and Sudanese are taught the three R's and the useful arts.

From one year's end to another the harbour of Port Said, at the north end of the Suez Canal is filled with the world's shipping and travellers of all nations crowd its docks.

the bark is cut or partially stripped. It is collected by the native women and packed up and shipped to Omdurman for sale and export. During my visit to the markets of that city I saw great piles of it which had been brought in to be sent down the Nile or over the railroad to the Red Sea. There were hundreds of tons of it lying out in the open, and I was told that within a few weeks it would all be on its way to Europe or the United States.

In closing this chapter I should like to add my tribute to the many well-deserved eulogies accorded Mr. Henry S. Wellcome. The value of the work already done is so great that it cannot be estimated, and every American should be proud of the fact that the founder of this institution was born in the United States, and that, although the greater part of his time is spent in connection with his great factories in London, he has remained an American citizen.

CHAPTER XXV

THROUGH THE SUEZ CANAL

BRING your steamer chair to the rail and look out from the deck of our ship over the Red Sea as we sail southward along the coast of East Africa. The sun is hot but we have an awning above us, and the salt breeze cools our cheeks. We have returned by rail and by river from Khartum to Cairo, have gone over the Nile delta to Port Said, have passed through the Suez Canal, and have sailed south into the Red Sea. We are now off the coast of Arabia, on our way into the Indian Ocean, bound for the port of Mombasa, whence we shall go across a mighty plateau to the great African lakes. Mombasa is within a rifle shot of the Equator and only a few miles north of Zanzibar. It is at the southeastern end of Kenya Colony and is the terminus of the Uganda Railway which crosses that country to Kisumu, the chief port of Lake Victoria.

My original intention was to have reached Lake Victoria by taking the mail steamer at Khartum to Gondokoro, and following the Nile by boat and on foot to its source where it pours out of the lake, but owing to the run-down condition of my son Jack, caused by the dengue fever which he caught in Egypt, I have not dared to risk the dangers of the malaria, black-water fever, and sleeping sickness so common in the wilds of the upper Sudan, and therefore

have changed my route to the Suez Canal, Red Sea, and Indian Ocean.

All travel in East Africa was reorganized when the Suez Canal was built About three thousand years ago, when the Phœnicians had settled on the north coast, founding Carthage, they had pushed their way into Egypt and even into Abyssinia, and a little later had come down along the east coast of the Indian Ocean, forming settlements probably as far south as Mozambique. After Carthage was conquered by the Romans, these East African settlements were seized by the Arabs, who colonized the coast of the Indian Ocean as far south as Sofala. Later still, under the Ptolemies, Greek traders visited many of these Arab settlements, and in the twelfth century Zanzibar first appeared on European maps of the world as one of the Mohammedan colonies. Then Columbus discovered America and Vasco da Gama, who was the first to round the Cape of Good Hope, anchored at Mombasa in 1498. Until the Suez Canal was constructed, the only sea route from Europe to the ports of the Indian Ocean was by the Cape of Good Hope. There are ships still making the voyage that way, but for the most part they end their trips at one of the eastern ports of South America.

The ships that formerly went to China and India had to go around Africa, the trip to Bombay from London being over eleven thousand miles. By the Suez Canal it is just about seven thousand miles, making a saving of four thousand miles, or a thousand miles more than the distance from New York to Liverpool.

I have before me the figures giving the traffic of the Suez Canal in a typical year. Four thousand vessels and

five hundred thousand travellers passed through. Supposing that each made a saving of four thousand miles only, the total gain for the year would have been sixteen million miles or enough to reach six hundred and forty times around the world at the Equator.

The gain is even greater at the Panama Canal. It is hard to estimate how much time and distance have been saved for the world by these two great waterways.

My investigations at Port Said and Suez show that not only will the Panama Canal pay, but that Uncle Sam will some day find it his most profitable investment.

Our trip from the Mediterranean to the Gulf of Suez took just eighteen hours, and it cost the ship a toll of four hundred dollars per hour. For the privilege of passing through it had to pay seventy-five hundred dollars, and, in addition, two dollars for every man, woman, and child on board. All the canal company did in this case was to reach out its hand and take in the money. The ship had to furnish its own coal and steam its way through, the toll being merely for the right of passage.

But this ship is comparatively small. Its tonnage is only five thousand, and many of the vessels now using the canal are much larger. Nearly every day steamers pay ten thousand dollars each for their passage, and tolls of fifteen and twenty thousand dollars are not uncommon. When an army transport goes through, the men on board are charged two dollars a head, and this adds enormously to the canal receipts. Indeed, a war, which knocks so many other stocks flat, sends those of the Suez Canal sky-high.

The Suez Canal is controlled by the British. It was planned out by a Frenchman, financed by French bankers,

Beside the Suez Canal runs a fresh-water canal built to supply the workmen digging the big ditch. The trees lining its banks are striking proof that the desert needs only moisture to make it bloom.

The traffic and earnings of the Suez Canal have far exceeded the hopes of even De Lesseps, whose statue now stands at the entrance of the great ditch through the desert which changed the shipping routes of the world.

and engineered by French brains, but the bulk of the profits go to John Bull. When Ferdinand de Lesseps proposed to build it, the English sneered at the suggestion. When he got a concession from the Khedive, Said Pasha, they actually opposed its construction, doing everything they could to clog the work. The French received no help from other European nations, but they went on. They began digging in 1859, and just about ten years later the waters of the Mediterranean were allowed to flow into the Red Sea.

The opening of the Suez Canal cost Ismail Pasha more than twenty millions of dollars. Among the notables who were present was the Empress Eugénie, for whose entertainment a grand palace was fitted out at Cairo. My old dragoman told me that he had seen Eugénie during her visit to Egypt and that she had climbed the Pyramids, taken the fatiguing trip to the interior of the greatest of them, and had ridden on a camel to the Sphinx.

In the year following its opening some five hundred thousand tons of shipping went through the canal. In less than five years this had increased to more than two million tons and the gross income to almost five million dollars per annum. The British, then seeing that it was a good thing, cast about to find some method of control. They succeeded through Ismail Pasha, who was on the throne of Egypt. Old Ismail was one of the most extravagant tyrants who has ever squeezed money out of an oppressed people. He had aided the French in building the canal. In the allotment of shares, one hundred and seventy-six thousand out of the four hundred thousand had gone to the Egyptian government, so when the Khedive got hard up he concluded to put them on the market.

The English cabinet got wind of the matter, and at the same time the French minister at Cairo telegraphed Paris that "unless France buys the Egyptian shares to-morrow, they will be purchased by England."

At that time Parliament was not in session, but Lord Beaconsfield and one or two others took the responsibility of making the trade. Borrowing twenty million dollars from the Rothschilds, they had the whole of Ismail's stock in the British treasury and John Bull had the control before the world outside had any idea that the bargain was even pending. He had not, it is true, fifty-one per cent. of the entire capital stock, but the other holdings were so scattered that the seven sixteenths which he owned gave him the whip hand, and that he has held ever since.

Now, no large block of common stock appears to be held by any individual, corporation, or other government. Indeed, at a meeting some years ago the largest shareholder outside of Great Britain was a Frenchman, who had a little more than fifteen hundred shares.

That twenty million dollars was one of the best investments John Bull has ever made, his holdings to-day being worth many times what he paid for them. He has already received from it many millions of dollars in dividends, and by his control of the canal has enormously increased his power and prestige among the nations of the world. His money gain, however, is not quite as great as that of the original stockholders. They paid only about one hundred dollars per share while he paid a little more than one hundred and thirteen dollars.

I know the Panama Canal well. I visited it when it was in the hands of the French, and I have spent several weeks there during American control. I went over

it from end to end with our engineers; watched the steam shovels gouging the earth out of the Culebra Cut, and travelled in a canoe down that part of it which was once the Chagres River. I have also gone through the Suez Canal at three different times and have made many notes of its construction.

The two undertakings are vitally different. The Suez Canal is little more than a great ditch through the desert, and although it is just about twice as big as Panama it does not compare with the latter in the engineering difficulties of its construction. The ground here is comparatively level. That of the Panama Canal route is up hill and down, going right across the backbone of the Andes. The amount excavated here was one hundred million cubic yards, or just about one hundred million tons of dead weight. On one of my visits to Panama I figured that the excavation of Culebra would just equal a ditch three feet wide and three feet deep and long enough to go two times around this twenty-five-thousand-mile globe with ten thousand miles of ditch to spare.

Twenty thousand and more of the Egyptian *fellahs* were employed upon the Suez Canal at a time, and they scooped up much of the dirt in their hands and carried it away in baskets. At the start men were paid from ten to fifteen cents a day and boys under twelve only five cents. After a time they were not paid at all. The Khedive agreed to furnish all the labourers, and they worked for the French under the lash just as the Hebrews did for the Egyptians in the days of Pharaoh ages ago. With up-to-date canal-dredging machinery and steam shovels the work of digging the canal at Suez could perhaps be reproduced at one half its original cost.

The actual cost was probably quadrupled through the money spent in graft, extravagance, and high interest rates by the French and Egyptians in connection with it. When Ismail Pasha was forced from the throne he left Egypt in debt to the amount of five hundred million dollars, most of which was directly or indirectly caused by canal expenditures.

One would think that Egypt ought to receive a big revenue for the right of way through her country and for the canal which her money and her people practically built. By the original concession with Said Pasha she was to receive fifteen per cent. of the net profits for the entire term of the concession, which was ninety-nine years. But after Ismail Pasha was deposed, the Egyptian government, finding itself without money or credit, sold this claim on the canal profits to the Crédit Foncier of France for a little more than four million dollars, and the only interest it now has in the canal is in the trade which the ships passing through bring to the country. Had Egypt retained that fifteen per cent. it would have been receiving millions of dollars a year from the tolls, and within a short time it could have recouped itself for all Ismail Pasha's extravagances. During the term of the concession it could easily have repaid its debt to Turkey, and could have made itself one of the richest countries of the world. As it is, the canal, with all its property, becomes the possession of Egypt in 1968, when the receipts at the present ratio of increase will be so enormous as to make it, in proportion to its population, a Crœsus among the nations of the world.

I spent all of last night on the Suez Canal. It was afternoon when our ship left Port Said, and as the darkness

came on we were in the heart of the Arabian Desert. The air was clear, and the scenes were weird but beautiful. The stars of the tropics, brighter by far than our stars at home, made the heavens resplendent, while a great round moon of burning copper turned the famous waterway into a stream of molten silver. As we ploughed our way through, we could look out over the silent desert of Arabia, and now and then see a caravan of long-legged camels with their ghost-like riders bobbing up and down under the moon. Our own pathway was made brighter by electric lights. We had one blazing globe at our masthead, fed by a dynamo on deck, and another at our prow. The latter threw its rays this way and that across the channel in front of the steamer, making the waters an opalescent blue like that of the Blue Grotto of Capri. We passed many ships. In the distance they appeared only as two blazing eyes—the reflectors which all vessels are required to keep lighted as they pass through. As the ships came nearer they rose up like spectres from the water, the masses of hulls and rigging back of the fiery eyes making one think of demons about to attack.

The trip through the canal is slow, for the ships are allowed to go only five or six miles an hour. Now and then they have to tie up to posts, which have been set along both sides of the canal all the way from Port Said to Suez. The canal rules require that when two ships meet one must stop and hug the bank until the other has passed by.

Parts of the banks are walled with stones to prevent the sand from falling in and filling up the canal, but notwithstanding this the dredges have to be kept at work all the year round. Not far from Port Said I saw great steam pumps sucking the sand from the bottom of the channel

and carrying it through pipes far out over the desert, and I am told that the process of cleaning and deepening the waterway is always going on.

There are stations, or guard houses, at intervals along the course of the waterway and a few small towns have grown up here and there. While the boat was stopping at one of these, a dirty Arab brought alongside a leg of raw mutton. He offered to sell it to the passengers but found no buyer. Outside of these towns and the guard houses we see few signs of life. Here a camel caravan trots along over the desert. There a flock of long-necked cranes springs from the water into the air. When the sun is right, away across the hot desert at the side of the ship there looms up out of the sands a strange ship on other waters, apparently as real as those through which we are moving. That is the wonderful mirage of the desert, which so often deceives the thirsty traveller passing through it on camels. As we approach it, it soon fades and disappears like a veritable castle of the air.

The Suez Canal of to-day is far different from that which was opened in 1869. As originally planned, the channel was less than twenty-five feet deep and so narrow that it could not have accommodated the shipping which goes through it nowadays. It has since been widened so that its average width at the surface is about three hundred feet, and the curves in it have been straightened so as to shorten the time of transit and enable ships to pass the more easily. The shipping facilities have been greatly improved both at Port Tewfik and at Port Said. At Port Said the coaling arrangements have been so improved that the largest steamers can load thousands of tons in a very few hours.

The chief towns on the canal are Port Said, Ismailia, and Suez. Port Said is at the northern end of the canal where we took the steamer. This city, long said to be the wickedest and most dissipated station on the way from London to the Far East, was made and lives by the canal, the harbour being full of shipping from one year's end to another.

Ismailia, midway of the canal, is still scarcely more than a small town. It is now said to be a healthful place, although at one time it was malarial. The Arabs call it the "cleansed tomb." This town is at the end of the fresh-water canal which was made during the building of the Suez Canal to supply the workmen with water, and is not far from Zagazig and the old Land of Goshen.

Suez, which is a small-sized city with several thousand Europeans, is connected by train with Port Said, and also with Cairo and other parts of Egypt. The city is about thirteen hundred miles from Aden, Arabia, and just twenty-nine hundred and nineteen miles from Mombasa, where we are to enter the Colony of Kenya and make our way by rail across country to the Great Lakes.

CHAPTER XXVI

DOWN THE RED SEA

THE Red Sea is red hot! I have steamed many miles along the Equator, but this salt-water corridor leading to the Indian Ocean is much hotter. As deserts shut in the Red Sea on both sides, there are no fresh streams to cool it, and the tropical sun beats down upon the waters and sands from January to December. As a result, the temperature of the water at the surface is often one hundred degrees above zero, and it steams the air like a vast hot-water plant. The sun's rays are bottled up by the deserts, which then act as enormous radiators. Consequently, the atmosphere is suffocating, and there seems to be only a trembling sheet of blue steel between us and the lower regions. Indeed, were it not for the electric fan in my cabin I should be unable to write. Outside upon deck we have double roofs of canvas to protect us from the sun, and many of the passengers sleep up there to escape the heat of the rooms below. Last night, in addition to the heat, we had to contend with a sandstorm, which covered our ship with red dust so fine that it got through the portholes and even into our beds. That storm came from Arabia, and may have swallowed some of the thousands of Mohammedan pilgrims on their way to Mecca.

As our ship went through this mighty cauldron we passed Jidda, in Arabia, where, according to the Mohammedans,

Eve lies buried. With the ship's glass we could almost see the place where lies the greatest grandmother of all mankind. She rests outside the city wall in a tomb four hundred feet long and a mosque rises over her dust. The Mohammedan story has it that when Adam and Eve were banished from the Garden of Eden a strong west wind wafted the fairy form of Eve to Arabia, while Adam, with his heavier weight, fell down in Ceylon. There is a string of coral keys running from Ceylon to Hindustan, still known as Adam's Bridge, over which he started out on his long hunt for Eve. It took him two hundred years to find her, and the meeting was somewhere near Mecca. What became of Adam's bones the story does not say.

On the map, the Red Sea looks like a slit between Asia and Africa, but this slit is actually two hundred miles wide in some places and twelve hundred miles long, or nearly half the distance from Suez to Mombasa, my destination on the east coast of Africa. Much of it is so deep that if the Blue Ridge Mountains were set in it only their higher peaks would show. It is so long that if it began at Ireland and extended westward across the Atlantic, it would reach halfway to Canada. If it could be lifted up and laid down upon the United States with Suez at Philadelphia, Bab-el-Mandeb would be a hundred miles or so beyond Omaha, Nebraska, and all the way between would be a canal as wide as from New York to Washington, or wide enough to accommodate all the navies of the world abreast, and leave a hundred miles or more to spare.

This great waterway narrows almost to a point at each end. At Bab-el-Mandeb, where it leaves the Indian

Ocean, it is no wider than the English Channel at Dover; at the north it is lost at the Suez Canal. Starting at Bab-el-Mandeb, the coasts broaden out and then run almost straight to the upper end, where they fork into two gulfs inclosing the lower part of the Sinai Peninsula. These two gulfs are those of Suez and Akabah. The Gulf of Suez is one hundred and seventy miles long, and has been joined to the Mediterranean by the Suez Canal. The Gulf of Akabah is one hundred and ten miles long, and for a time there was talk of making a canal from it to the Mediterranean.

The air on the Red Sea is so salty that one can almost eat eggs without seasoning. If one hundred pounds of its waters are boiled down, four pounds of salt will be found in the bottom of the kettle. The evaporation is so great that were it not for the inflow of the Indian Ocean the sea would, within less than a century, vanish in the air and leave in its place one immense block of salt.

I had expected to find the Red Sea coasts more thickly populated. There are no cities of any size and very few villages. Suez has large docks, but its trade is small, and it has nothing like the growth which men thought would come with the use of the canal.

Have you ever heard of the town of Kosseir? It is a Red Sea port on the west coast some distance south of Suez which at one time had a great trade. It was formerly the end of a caravan route from the Nile, and the Children of Israel crossed over that way and took boats for the Sinai Peninsula to reach the mountains where Moses received the Commandments.

To-day Kosseir is a stopping place for Egyptian pilgrims on their way to Jidda. It used to be much more impor-

tant in that respect than now. It had many inns and hotel tents outside, and was well supplied with dancing girls and the other side-show features of a true pilgrimage centre. Then the Suez Canal came and killed it. Its big houses fallen to ruins, the port has become a village of one-story huts. There are emerald mines near it, however, and the desert about shows evidences of having been once worked for gold.

I regret that I was not able to stop at Jidda, the port of Mecca, to which I have already referred. It is one of the most interesting places on the Red Sea, for one hundred thousand or more pilgrims pass through it every year. While at Omdurman, in the Sudan, I saw something like fourteen hundred Mohammedans on their way by railroad across the Nubian Desert to Port Sudan where they expected to get a ship for Jidda. Some of them had been ten years on the way, yet their religious enthusiasm had not waned. They had started out upon camels from the borders of Timbuktu and had been forced to sell their mounts to buy food. After that they had walked from oasis to oasis earning enough money to carry them onward. There were so many in the party that the British government officials had to divide them up into batches and send on a trainload or so at a time.

In the centuries since the worship of Mohammed began millions of pilgrims have walked over the sixty-five miles of hot sand from Jidda to Mecca. Worshippers go thither from all parts of North Africa and from the eastern coast of the Mediterranean as well as from India and southern Arabia. Jidda takes her toll from each of them. The people live by fleecing the devotees. The town, though full of hotels, is noted for its discomforts. It has a poor

water supply and after each big rain there is an epidemic of fever.

The projected railroad from Jidda to Mecca will probably pay well, for the travel is enormous. Twenty-five years ago more than sixty thousand Mohammedans came annually by sea to make their way over the sands to Mecca and Medina. There are perhaps half again as many more to-day, and the railroad will so reduce the cost of the trip that the number of worshippers will be greatly increased. Indeed, the day may come when some Mohammedan tourist agent will be selling to pilgrims from all parts of the Moslem world round-trip tickets to the birthplace of the Prophet, including admission to the Kaaba.

With Mecca accessible by railroad there may be a chance for Christians to visit the holy city of Islam. All who have been there in the past have had to go in disguise, and the man who would attempt it to-day takes his life in his hand. The railroad will be officered by Mohammedans, and it is doubtful whether they will take Christians as passengers. They will have to cater to the pilgrims, as it is from them that their traffic must come.

Meantime, without wishing to act as did the fox who called the grapes sour, I do not believe there is much to see in Mecca, after all. The town lies in a hot, arid valley watered for most of the year by a few brackish wells and some cisterns. The best water, which comes in from Arafat through a little aqueduct, is sold at high prices by a water trust at the head of which is the governor of the city.

Mecca, I am told, has only about fifty thousand inhabitants. It fills the valley and runs up the sides of the

hills. The houses are of dark stone, built in one, two, and three stories overhanging close to the streets. There are no pavements; it is often dusty, and one would have to feel all the holiness of the surroundings to make life agreeable for him in such an unattractive spot.

The most important place in Mecca is the sacred mosque and the most important thing in the mosque is the Kaaba, a cube-shaped stone building which stands in its centre. In the southeast corner of this building, at about five feet from the ground, is the black meteorite that the Mohammedans say was once a part of the Gates of Paradise. When Adam was cast out, this stone fell with him, dropping down near Mecca. At that time, they say, it was a beautiful white colour, but it is now turned to jet, having been blackened by the kisses of sinners. Every pilgrim who comes to Mecca presses his lips to it again and again, imagining that as he does so his sins go out of him into the stone, and his soul becomes as pure as it was when he was a baby. There are several hundred thousand pilgrims who perform this act every season, so that the holy stone of the Kaaba gets its millions of kisses each year. What a load of sin it must carry!

CHAPTER XXVII

ALONG THE AFRICAN COAST

THE two chief ports on the African coast of the Red Sea are Port Sudan and Suakim. They were nothing until the completion of the Red Sea road. The original plan was to use Suakim as the terminus of the Sudan railway. The English surveyors, however, finding a much better harbour at Port Sudan, extended the railroad to that point. The town which was a mere village a few years ago has now several thousand people, and grows like one of the mushroom settlements of the Canadian west.

Going on southward we passed the Italian possessions on the west coast of the Red Sea, where they have a colony known as Eritrea. This colony begins about one hundred and fifty miles south of Suakim and runs down almost to the Strait of Bab-el-Mandeb. It is not wide, extending back from the coast only to where the Abyssinian hills begin. The Italians tried to add to Eritrea a large part of Abyssinia but failed, owing to the resistance of King Menelik. The land they have now is of small value. There are only a few tracts that can be irrigated, and the exports are unimportant. The strip is inhabited by nomads, who raise camels, oxen, sheep, and goats. As the pasturage is scanty, the shepherds have to move about from place to place with their stock. Some of the tribes live in tents. Their wants are simple to an extreme.

The chief Italian port is Massawa, a little town situated on a coral island joined to the mainland by a causeway. Its two short railways, which connect it with the Abyssinian hills, comprise about forty-eight miles of track. One road is to be continued to the town of Asmara, near which some gold mines have been opened.

The Italians have built a telegraph line from their port to Addis Abbaba, the capital of Abyssinia, and they are trying to increase their trade with that country. They are shipping considerable salt, which, strange to say, is so relished by the Abyssinians that it brings more than sugar and takes much the same place among them as candy and tobacco with us. The average Abyssinian carries a stick of rock salt with him and takes a suck of it between whiles. If he meets a friend, he asks him to have a taste of his salt stick and his friend brings out his individual stick and they take lick about. It is just as it was with snuff in the days of our forefathers, when everyone offered his friends a pinch of his choice macaboy.

Besides Eritrea Italy owns another and larger strip of East Africa. This is Italian Somaliland, which begins at the mouth of the Gulf of Aden and runs down to the border of the British coast possessions. We shall pass it on our way to Mombasa. Italian Somaliland, though about three times as large as Ohio, has a population only two thirds that of the city of Cleveland, and is of little value. The people, who are largely nomadic, are engaged in cattle raising and agriculture.

If you will look on the map, you will see that the Gulf of Aden seems to rest on a shelf-like projection jutting out from the African continent. This projection reaches into the Indian Ocean for a distance of seven hundred and

eighty miles, and is sometimes called the "Great Horn of Africa." It ends in Cape Guardafui, of which we shall have a good view from our steamer as it leaves the gulf and starts south.

The cape is a mighty bluff rising almost straight up from the blue waters of the Indian Ocean. Its sides are of black rock, ragged and rugged, and its top is covered with sand. There is sand at its foot and lodged in the crevices, making yellow streaks against the black background. Beyond the cape extend sandy hills which swell over one another until they are lost in the distance. The country all about is desert. Neither trees, bushes, habitations, nor animals are to be seen. The clouds hang low over the cape, and out at sea the air is as moist as that of Virginia in April. Seen from the ocean, the bluff assumes the outlines of a sleeping lion with its tail in the sand. Still farther out it looks like a fortification towering over the sea. One hundred and thirty miles to the eastward, on the direct route to India, is Sokotra Island. owned by the British.

We went on southward, passing British Somaliland, a country a little larger than the State of Missouri, with a population of several thousand Mohammedan nomads who roam about from pasture to pasture with their cattle and camels. The colony came into the hands of the British after the war with the Mahdi, having belonged before that to Egypt. It was first administered by the government of India, but it is now managed directly from London.

Back of the European colonies that fringe the coast lies Abyssinia, one of the most interesting countries of the Black Continent. With the exception of Liberia, it is the only one that is independent of Europe. Recognized

Fifty years ago Suez, where canal and Red Sea meet and "East of Suez" begins, was a miserable Arab village. Now it is a city where several thousand Europeans share the general dreariness of this hot and desolate spot.

When two ships meet, one usually stops close to the bank and lets the other pass. In places the sides are lined with stones to prevent slides, and dredges are at work all the time keeping the channel clear.

by the Powers as a self-governing state, it has been able to preserve its native monarchy. Everyone in America has heard of the famous King Menelik II, founder of the present government, and the name is still one to conjure with in that country. It is said that an Abyssinian can stop another from whatever he happens to be doing by calling out to him: "Ba Menelik," or "In the name of Menelik." There are penalties for using this formula frivolously, and the one so doing may be called upon to justify his action before a judge.

The empire of Abyssinia consists of a mighty plateau ten times as large as the State of Ohio, from which rise many high mountains. The country might be called the roof of the continent, and has so much beautiful scenery that it has been dubbed the African Switzerland. The plateau consists of great tablelands rising one above the other and cut up by great gorges and mighty canyons somewhat like those of the Rockies. In the centre of the plateau is Lake Tsana, and down its sides flow great rivers, some of which are lost in the sands while others, such as the Atbara and the Blue Nile, give food and water to Egypt. The Blue Nile has its source in Lake Tsana.

Abyssinia has some of the best soil of Africa. It is, in fact, a fertile island in the midst of a sea of deserts and swamps. It will grow almost anything, including sugar and cotton in the lowlands, coffee higher up, and still higher the hardy grains of the temperate zone.

This country is said to be the first home of the coffee plant. It has a province called Kaffa, whence the first coffee beans were carried to Arabia. The word "coffee" comes from the name of that province. In Kaffa, coffee trees grow so large that they are used for timber. In

some places they grow wild. In others the coffee is cultivated.

At present Abyssinia is almost unexplored, but its opening and development are assured, and it may become one of the tourist and hunting resorts of the future. The land is especially interesting to us in that most of the Abyssinians are Christians, their religion being about the same as that of the Copts of Egypt.

CHAPTER XXVIII

ADEN

LEAVING the Red Sea at the Strait of Bab-el-Mandeb, we came to Aden, Arabia, and thence went on down along the coast of the Indian Ocean to Mombasa. The very best of our Mocha coffee is shipped from Aden to the United States. It comes here on camels from the province of Yemen, where it is raised by the natives, each family having a few bushes about its hut and producing only enough for home use and a little for trading.

There are no big plantations and no coffee factories. When ripe the berries are gathered and dried in the sun. After this they are put up in bales, and carried on camel-back over the hills to this place. They are then hulled between millstones turned by hand, and winnowed and sorted for shipment. The latter work is done by the women, who look over each grain carefully, taking out the bad ones. Labour is cheap, but the coffee has to go through many hands. It has to pay toll to the chiefs of the tribes who own the country through which it is carried, so it must be sold at high prices. For this reason we have imitations of Mocha coffee from all parts of the world.

For many years this port of Aden has belonged to John Bull, who took possession of it in 1839, and later got hold of the island of Perim in the Strait of Bab-el-Mandeb also.

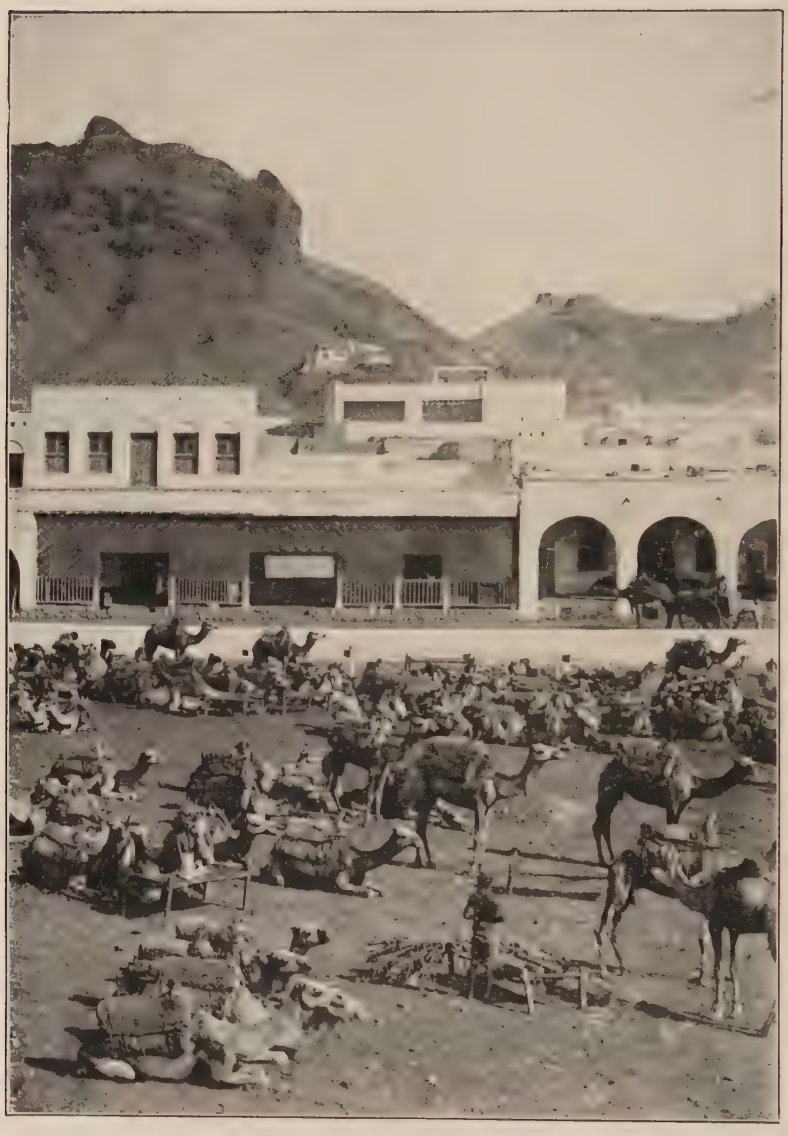
That island is about a hundred miles from Aden and the two places practically control the entrance to the Red Sea and the Suez Canal. As for Aden, it is the Gibraltar of this part of the world, as well as one of the greatest of the British coaling stations. The harbour is excellent, and the outer entrance is more than three miles wide. The inner waters have been dredged so that steamers of twenty-six feet draft can go everywhere, and there is room enough for all the vessels that pass through the canal to anchor here at one time.

Aden is strongly fortified. The town, which stands on a volcanic isthmus, is guarded by a broad ditch cut out of the solid rock. It has a garrison of several thousand soldiers, guns of the latest pattern, and no one knows how many submarine mines and other defences against attack.

But no matter what its military importance, Aden is the sorriest city I have ever seen. There is nothing like it except Iquique on the nitrate coast of South America, and Iquique is a paradise compared with Aden. Imagine a great harbour of sea-green water, the shores of which rise almost abruptly into ragged mountains of brown rock and white sand. There is not a blade of grass to be seen, there are no trees, and even the cactus and sage brush of our American desert are absent. The town is without vegetation. It is as bare as the bones of the dead camels in the sandy waste behind it, and its tropical sun beats down out of a cloudless African sky. Everything is gray or a dazzling white. The houses on the sides of the hills are white, the rocks throw back the rays of the sun, and the huts upon their sides are of the same gray colour as themselves.

The city looks thirsty and dry. It is dry. There is

Each year thousands of Moslems from North and East Africa make the pilgrimage to this city of Mecca. They worship at the shrines sacred to Islam, chief among which is the Kaaba, containing the Holy Rock.



Aden is in the land of the camel, and processions of them come into the city every day, bringing coffee and gums. Eighteen miles is a day's journey for the average freight animal, but those used for riding go much farther.

only a well or so in the place, and these, I am told, the English bought of their owners for something like one million dollars. Almost all of the water used is condensed from the sea, and fresh water always brings a big price. There are no streams anywhere for miles around. The town is situated in the crater of an extinct volcano, and there is one great depression near by in which some famous stone tanks were made a thousand or so years ago. These tanks are so big that if they were cleaned out they might hold thirty million gallons of water. The water is caught when it rains, and is sometimes auctioned off to the highest bidder. The receipts go to the British Government, to which a good rain may bring in fifteen or twenty thousand dollars or more.

This is my second visit to Aden. My first was sixteen years ago when I stopped here on my way around the world. I do not see that the town has changed and I doubt whether it has any more people than it had then. The population is made up of all the nations and tribes common to the Indian Ocean. It contains Arabs, Africans, Jews, Portuguese, and East Indians. There are about four thousand Europeans, including merchants, officials, and soldiers. The majority of the people are Arabs and the prevailing colour is black. There are tall, lean, skinny black Bedouins from interior Arabia, who believe in the Prophet, and go through their prayers five times a day. There are black Mohammedans from Somaliland and black Christians from Abyssinia. In addition there are Parsees, Hindus, and East Indian Mohammedans of various shades of yellow and brown. A few of the Africans are woolly-headed, but more of them have wavy hair. The hair of the women hangs down in cork-

screw curls on both sides of their faces. Of these people neither sex wears much clothing. The men have rags around the waist, while the women's sole garments are skirts which reach to the feet.

The East Indians, who are everywhere, do most of the retail business and trading. They are found peddling on every street corner. They dress according to their caste and religion. The Parsees, who are fire-worshippers, wear black preacher-like coats and tall hats of the style of an inverted coal scuttle. The East Indian Mohammedans wear turbans and the Hindus wrap themselves up in great sheets of white cotton. There are besides many Greeks and Italians, and not a few Persians. The English dress in white and wear big helmets to keep off the sun.

This is the land of the camel. Caravans are coming in and going out of the city every day bringing in bags of Mocha coffee and gums and taking out European goods and other supplies to the various oases. There is a considerable trade with Yemen as well as with the tribes of southeastern Arabia. There are always camels lying in the market places, and one sees them blubbering and crying as they are loaded and unloaded. They are the most discontented beasts upon earth, and are as mean as they look. One bit at me this afternoon as I passed it, and I am told that they never become reconciled to their masters. Nevertheless, they are the freight animals of this part of the world, and the desert could not get along without them. They furnish the greater part of the milk for the various Arab settlements, and the people make their tents of camel's hair. They are, in fact, the cows of the desert. They are of many different breeds, varying

as much in character as horses. There are some breeds that correspond to the Percheron, and the best among them can carry half a ton at a load. There are others fitted solely for riding and passenger travel. The ordinary freight camel makes only about three miles an hour and eighteen miles is a good day's work. The best racing camels will travel twenty hours at a stretch, and will cover one hundred miles in a day. Seventy-five miles in ten hours is not an uncommon journey for an Arabian racer, and much better speed has been made. As to prices, an ordinary freight camel brings about thirty dollars, but a good riding camel costs one hundred dollars and upward.

Have you ever heard how the camel was created? Here is the story of its origin as told by the Arabs. They say that God first formed the horse by taking up a handful of the swift south wind and blowing upon it. The horse, however, was not satisfied with his making. He complained to God that his neck was too short for easy grazing and that his hoofs were so hard that they sank in the sand. Moreover, he said there was no hump on his back to steady the saddle. Thereupon, to satisfy the horse, God created the camel, making him according to the equine's suggestions. And when the horse saw his ideal in flesh and blood he was frightened at its ugliness and galloped away. Since then there is no horse that is not scared when it first sees a camel.

This story makes me think of the Arab tradition as to how God first made the water buffalo, which, as you know, is about the ugliest beast that ever wore horns, hair, and skin. God's first creation was the beautiful cow. When He had finished it the devil happened that way, and as he

saw it he laughed at the job, and sneered out that he could make a better beast with his eyes shut. Thereupon the Lord gave him some material such as He had put into the cow and told him to go to work. The devil wrought all day and all night, and the result was the water buffalo.

I have made inquiries here and elsewhere as to the Arabian horse. He is a comparatively scarce animal and he does not run wild in the desert, as some people suppose. Indeed, comparatively few of the Arabian tribes have horses, and the best are kept on the plateau of Najd, in the centre of the peninsula. They belong to the Anazah tribe, which is one of the oldest of all, and which claims to date back to the Flood. It is a wealthy tribe, and it has been breeding horses for many generations. The best stock has pedigrees going back to the time of Mohammed, and the very choicest come from five mares which were owned by the Prophet and blessed by him. These horses seldom go out of Arabia. They are owned by the chiefs, and are not sold, except in times of the direst necessity. Now and then a few get into Egypt and other parts of North Africa, and the Sultan of Turkey has usually had some for his stables.

It is only occasionally that a pure-bred Arabian goes to Europe or the United States. Two of the best stallions we ever imported were those which General Grant brought from Constantinople. This was, I think, during his tour around the world. While in Turkey he and the Sultan visited the royal stables together. As they looked over the horses the Sultan told Grant to pick out the one he liked best, and he designated a dapple gray called the Leopard. "It is yours," said the Sultan, "and this also,"

pointing to a four-year-old colt called Linden Tree. In due time these two horses arrived in the United States and were put on General Ed Beale's farm near Washington. They were used for breeding, and they produced about fifty fine colts.

CHAPTER XXIX

IN MOMBASA

MOMBASA is the terminus of the Uganda Railway as it comes down from Lake Victoria. It is the port of entry for all the sea-borne trade of the seven provinces of British East Africa, or Kenya Colony, as it is now called, Uganda, and adjacent territory. It is on an island halfway down the coast of East Africa and just below the Equator, where old Mother Earth is widest and thickest. If I should stick a peg down under the chair in which I am writing into the old lady's waist, and then travel westward in a straight line I would soon reach the upper end of Lake Tanganyika, and a little later come out on the Atlantic Ocean just above the mouth of the Congo. Crossing that great sea, I should make my next landing in South America, at the mouth of the Amazon, and, going up the Amazon valley, I should pass Quito, in Ecuador, and then drop down to the Pacific. From there on the trip to the peg stuck in at Mombasa would comprise sixteen or more thousand miles of water travel. I should cross the Pacific and Indian oceans, and the only solid ground on the way would be the islands of New Guinea, Borneo, and Sumatra.

Three thousand miles from Port Said and more than six thousand miles from London, Mombasa is far below the latitude of the Philippines. It is just about a day by

ship north of Zanzibar and thirty days' sailing from New York.

So far, most of my travels in Africa have been in the sands, with only a patch of green now and then. I was close to the Sahara in Morocco, and I travelled many hundreds of miles over it while in Algeria and Tunisia. In Tripoli my eyes were made sore by the glare of the Libyan wastes and their dust blew across the Nile valley during my stay in Egypt and the British Sudan. The Arabian desert was on both sides of us as we came down the Red Sea and its sands several times covered the ship. We had the rockiest of all deserts in southern Arabia while that of Italian Somaliland was not any better.

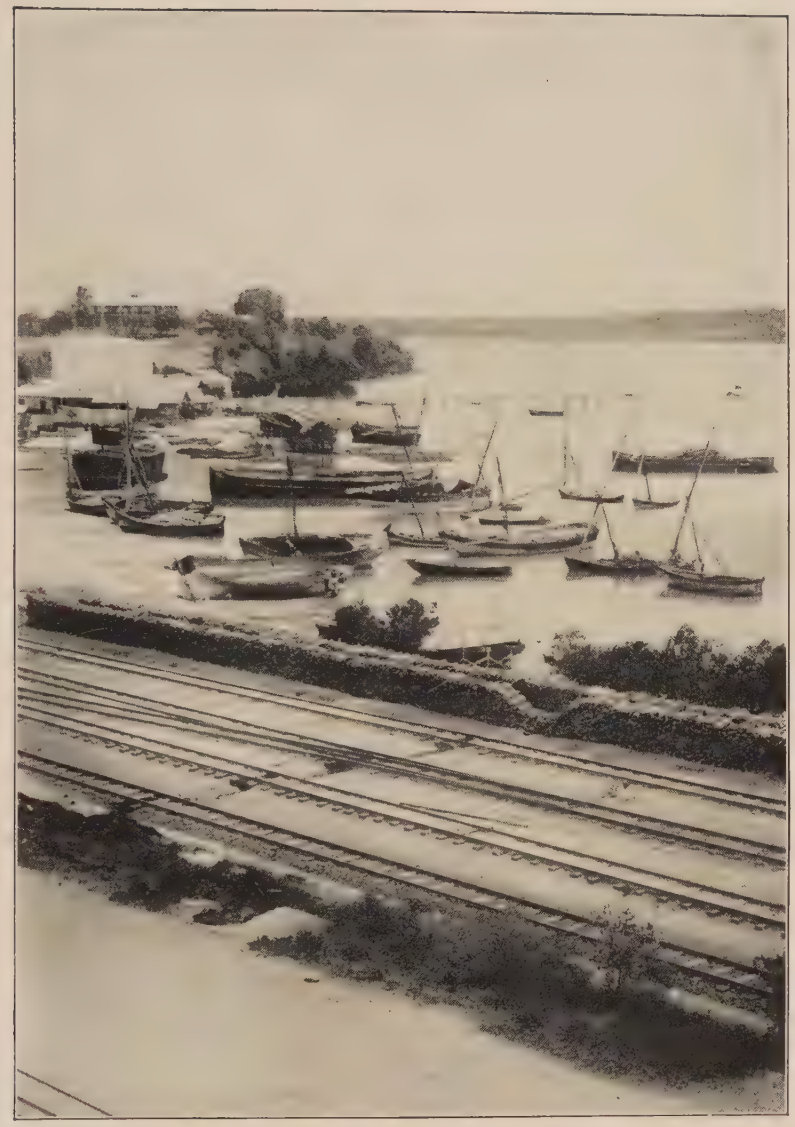
Here at Mombasa we are in the luxuriant tropics where the surroundings remind me of Solomon's song. All nature seems joyful. The rain has conquered the sun and there are mosses, vines, and trees everywhere, The shores of the mainland are bordered with coconuts, we have mighty baobab trees loaded with green scattered over the island, and even its cliffs are moss grown.

A jungle of green on a foundation of coral, Mombasa is only a mile or so wide and three miles in length, but it rises well up out of the sea and is so close to the continent that one can almost hear the wind blow through the coconut groves over the way. On the island itself the jungle has been cut up into wide roads. There is a lively town with a polyglot population at one end of it, and the hills are spotted with the homes of the British officials. The island has two good harbours, a little one and a big one. The little one, which is in the main part of the town, is frequented by small craft. The big one could hold all the ships that sail the East Coast, and the people here say it

is to be the great port of this side of the continent. The larger harbour is called Kilindini, a word that means "the deep place." It has only a few warehouse sheds and a pier above it, the main settlements being across the island four miles away.

It was in Kilindini that I landed, and that under difficulties. Our ship was anchored far out and our baggage was taken ashore in native boats. Finding the main quay was crowded, I had my boatman go direct to the custom house and let us out on the beach. The custom house is a little shed about big enough for one cow situated so high up above the water that our trunks had to be carried out upon the heads of the Negroes. The water came up to their middles, but nevertheless they waded through it and brought both us and our baggage to the land. The customs examination was lenient. The officers looked through our trunks for guns and ammunition and warned us that we could not hunt elephants and hippopotami without a two-hundred-and-fifty-dollar license. A little later the natives again took our trunks and lugged them about a quarter of a mile to the top of a hill, where we got the cars for Mombasa.

The word "cars" savours of electricity or steam. The cars I took were run by men. Here in East Africa human muscle forms the cheapest power. The wages of the natives run from five cents a day upward, while in the interior there are many who will work eight or nine hours for three cents. The result is that the trolley cars are propelled by men. Each car consists of a platform about as big as a kitchen table, with wheels underneath and an awning overhead. In the middle of the platform there is a bench accommodating two to four persons. The wheels



Kilindini harbour, or "the deep place", is connected with the town of Mombasa by a mile-long tramway, the cars of which are pushed by native runners. Mombasa is the chief port of Kenya Colony.

In this African village there are 25,000 natives, representing perhaps a hundred tribes, each with its own dress and customs. All, however, are eager buyers of the gaudy print cloths in the bazaars of the Hindu merchants.

In Kenya Colony the East Indians complicate matters for the British government. They practically control the retail trade and, having grown rich and prosperous, have begun to raise embarrassing political issues.

run on a track about two feet in width, and each car is pushed from behind by one or more bare-legged and bare-headed men who run as they shove it up hill and down. There are such car tracks all over the island, with switches to the homes of the various officials. There are private cars as well as public ones, and everyone who is anybody has his own private car with his coolies to push him to and from work. At the beginning and closing of his office hours, which here are from eight until twelve and from two until four, the tracks are filled with these little cars, each having one or more officials riding in state to or from the government buildings.

I wish I could show you this old town of Mombasa. It began before Columbus discovered America, and the citizens can show you the very spot where Vasco da Gama landed when he came here from India shortly after he discovered the new route to Asia by the Cape of Good Hope. He landed here in 1498 at just about the time that Columbus was making his third voyage to America. Even then Mombasa was a city and Da Gama describes it. A little later it became the property of the Portuguese. The most prominent building in the town is the great red Fort of Jesus, built by the Portuguese in 1593, when the city was made the capital of their East African possessions. It was later the scene of massacres and bloody fights between Portuguese and Arabs. To-day the red flag of the Sultan of Zanzibar flies over the old fort, now used as a prison, admission to which is forbidden.

After the Portuguese were driven out the Arabs held Mombasa for many years, and it was an Arab ruler, the Sultan of Zanzibar, who owned it when the British came in. It still belongs to him in a nominal way. He has

leased it to the British for so much a year, but his flag floats above John Bull's ensign everywhere on the island.

Most of the population of Mombasa is African. Of the twenty-six thousand inhabitants, only about three hundred and fifty are white. There are people here from all parts of the interior, some of them as black as jet, and a scattering few who are chocolate brown or yellow. These natives live in huts off by themselves in a large village adjoining the European and Asiatic quarters. Their houses are of mud plastered upon a framework of poles and thatched with straw. The poles are put together without nails. There is not a piece of metal in any of them, except on the roof, where here and there a hole has been patched up with a rusty Standard Oil can. Very few of the huts are more than eight feet high, while some are so low that one has to stoop to enter them. They are so small that the beds are usually left outside the house during the daytime, and the majority of each family sleep on the floor.

I find this African village the most interesting part of Mombasa. Its inhabitants number over twenty-five thousand and comprise natives of perhaps one hundred tribes, each of which has its own dress and its own customs. Most of the women are bare-headed and bare-legged; and some of the men are clad in little more than breech cloths. Now and then one sees a girl bare to the waist, and the little ones wear only jewellery. On the mainland all go more or less naked.

It is amazing how these people mutilate themselves so as to be what they consider beautiful. The ears of many of the women are punched like sieves, in order that they may hold rings of various kinds. At one place I saw a girl with a ring of corks, each about as big around as

my little finger, put through holes in the rims of her ears. She had a great cork in each lobe and three above that in each ear. There was a man beside her who had two long sticks in his ears; and in another place I saw one who had so stretched the lobe holes that a good-sized tumbler could have been passed through them. Indeed, I have a photograph of a man carrying a jam pot in his ear.

The most numerous of the natives here in Mombasa are the Swahilis. These are of a mixed breed found all along the central coast of East Africa. They are said to have some Arab blood and for this reason, perhaps, are brighter and more businesslike than the ordinary native. The Swahilis are found everywhere. They have little settlements in the interior in the midst of other tribes, and the Swahili language will carry one through the greater part of Central and East Africa. The British officials are required to learn it, and one can buy Swahili dictionaries and phrase books. During most of my journey I shall take a Swahili guide with me, or rather a black Swahili boy, who will act as a servant as well as guide.

Let me give you a picture of the Swahili women as I see them here. Their skins are of a rich chocolate brown and shine as though oiled. They have woolly hair, but they comb it in a most extraordinary way, using a razor to shave out partings between the rows of plaited locks so that when the hair is properly dressed the woman seems to have on a hood of black wool. I took a snapshot of two girls who were undergoing the process of hairdressing yesterday, fearing the while that their calico gowns, which were fastened by a single twist under the armpits, might slip. A little farther on Jack took a photograph of another giddy maiden clad in two strips of bright-coloured calico

and numerous earrings, while I gave her a few coppers to pose for the picture. At the same time on the opposite side of the street stood a black girl gorgeous with jewellery. In her nose she had a brass ring as big around as the bottom of a dinner bucket, and her ears had holes in their lobes so big that a hen's egg could be put through them without trouble. Not only the lobes, but the rims also were punctured, each ear having around the edges five little holes of about the size of my little finger. These holes were filled with rolls of bright-coloured paper cut off so smoothly that they seemed almost a part of the ear. The paper was of red, green, and blue and looked very quaint.

The coast Negroes of East Africa are often Swahilis, descendants of Arab traders and their native wives. They have a dialect of their own and pride themselves on being more intelligent than the pure-bred Africans.

The Uganda Railroad plunges the traveller into the blackest of the Black Continent, where the natives seem people of another world. The few clothes they wear are a recent acquisition from the white men.

CHAPTER XXX

THE UGANDA RAILWAY

TRAVELLING by railway through the wilds of East Africa! Steaming for hundreds of miles among zebras, gnus, ostriches, and giraffes! Rolling along through jungles which are the haunts of the rhinoceros and where the lion and the leopard wait for their prey! These were some of my experiences during my trip over the Uganda Railway from Mombasa to Nairobi.

Only a few years ago it took a month to cover the distance between these two points. To-day I made it in less than twenty-four hours, and that in a comfortable car. The railroad fare, travelling first-class, was fifty-eight rupees, which at normal exchange would total about thirty dollars, and I had good meals on the way. The distance is over three hundred miles, just about half the length of the railroad.

Wood-burning locomotives of the American type are largely used. The maximum scheduled speed is twenty-five miles an hour. Trains leave Mombasa daily for Nairobi and three times a week for Kisumu on Lake Victoria, which is five hundred and eighty-four miles from Mombasa.

Leaving Mombasa, our train carried us across a great steel bridge to the mainland, and we climbed through a jungle up to the plateau. We passed baobab trees, with

trunks like hogsheads, bursting out at the top into branches. They made me think of the frog who tried to blow himself to the size of a bull and exploded in the attempt. We went through coconut groves, by mango trees loaded with fruit, and across plantations of bananas, whose long green leaves quivered in the breeze made by the train as it passed. Now we saw a gingerbread palm, and now strange flowers and plants, the names of which we did not know. As we went upward we could see the strait that separates Mombasa from the mainland, and higher still caught a view of the broad expanse of the Indian Ocean. For the first one hundred miles the climb is almost steady, and we were about one third of a mile above the sea when we reached the station at Voi. Here the country is more open, and far off in the distance one can see a patch of snow floating like a cloud. That patch is the mountain of Kilimanjaro, the top of which is more than nineteen thousand feet above the sea. It is the loftiest mountain on the continent yet is not much higher than Mt. Kenya, that other giant of British East Africa, which rises out of the plateau some distance north of Nairobi.

After the jungle of the coast line, the country becomes comparatively open and soon begins to look like parts of America where the woods have been cut away and the brush allowed to grow up in the fields. Here the land is carpeted with grass about a foot or so high. Thousands of square miles of such grass are going to waste. I saw no stock to speak of, and at that place but little wild game. Without knowing anything about the tsetse fly and other cattle pests, I should say that the pastures just back of the coast might feed many thousands of cattle and hogs.

The soil seems rich. It is a fat clay, the colour of well-burnt brick, which turns everything red. The dust filled our car; it coated our faces, and crept through our clothes. When we attempted to wash, the water soon became a bright vermilion, and the towels upon which we dried were brick-red. My pillow, after I had travelled all night through such dust, had changed from white to terra-cotta, and there was a Venetian red spot where my head had lain. The wisest travellers cleansed eyes and nostrils several times a day with an antiseptic solution.

It is a strange thing to go to sleep in the woods and then awake to find one's self rolling over a high, treeless country with game by the thousand gambolling along the car tracks. We awoke on the Kapiti plains, which are about a mile above the sea and two hundred and sixty-eight miles from Mombasa. These plains are of a black sandy loam and covered with a thick grass. They look much as Iowa, Kansas, or Nebraska did when the railroads were first built through them and the buffaloes galloped along with the cars. The same conditions prevail here save that the game is of a half-dozen big kinds, and most of it is such as one can see only in our zoölogical gardens at home. According to law no shooting may be done for a mile on each side of the track, so that the road has become a great game preserve two miles in width and about six hundred miles long. The animals seem to know that they are safe when they are near the railroad, for most of them are as quiet as our domestic beasts when in the fields.

Let me give you some notes which I made with these wild animals on all sides of me. I copy: "These Kapiti plains are flat and I am riding through vast herds of antelopes and zebras. Some of them are within pistol shot of

the cars. There are fifty-odd zebras feeding on the grass not one hundred feet away. Their black and white stripes shine in the sunlight. Their bodies are round, plump, and beautiful. They raise their heads as the train goes by and then continue their grazing. Farther on we see antelopes, some as big as two-year-old calves and others the size of goats. The little ones have horns almost as long as their bodies. There is one variety which has a white patch on its rump. This antelope looks as though it had a baby's bib tied to its stubby tail or had been splashed with a whitewash brush. Many of the antelopes are yellow or fawn coloured, and some of the smaller ones are beautifully striped.

"Among the most curious animals to be seen are the gnus, which are sometimes called wilde-beeste. As I write this there are some galloping along with the train. They are great beasts as big as a moose, with the horns of a cow and the mane and tail of a horse. Hunting them is good sport.

"But look, there are some ostriches! The flock contains a dozen or more birds, which stand like interrogation points away off there on the plain. They turn toward the cars as we approach, then spread their wings and skim away at great speed. Giraffes are frequently seen. They are more timid than the antelope, and by no means so brave as the zebras."

The Uganda Railway begins at the Indian Ocean and climbs over some of the roughest parts of the African continent before it ends at Lake Victoria, one of the two greatest fresh-water lakes of the world. Leaving the seacoast, the rise is almost continuous until it reaches the high plains of Kenya Colony. Here at Nairobi, where

All the steel in the bridges on the Uganda Railway was made in the United States and put in place under American direction, because the British bidders wanted three times as long and double the price for the job.

Built primarily to break up the slave-trade in East Africa, the Uganda Railroad has also proved that the natives, under proper direction, can become useful workers. Thousands of them have been employed in the construction and maintenance of the line.

The natives rob the railroad of quantities of wire, which to them is like jewellery. Both men and women load themselves down with pounds of it coiled around their arms, legs, and necks, and even through their ears.

this chapter is written, I am more than a mile above the sea, and, about fifteen miles farther on at the station of Kikuyu, the road reaches an altitude seven hundred feet above the top of Mt. Washington. From there the ascent is steady to a point a mile and a half above the sea. Then there is a great drop into a wide, ditch-like valley two thousand feet deep. Crossing this valley, the railway again rises until it is far higher than any mountain in the United States east of the Rockies. It attains an elevation of eighty-three hundred feet, and then falls down to Lake Victoria, which is just about as high as the highest of the Alleghanies. The line was built by the British Government in less than five years and has cost altogether some thirty-five million dollars. It has a gauge of forty inches, rails which weigh fifty pounds to the yard, and tracks which are well laid and well ballasted. In an average year almost two hundred and fifty thousand tons of goods and five hundred thousand passengers are carried over it, and its earnings are more than its operating expenses.

It does not yet pay any interest on the capital invested, but it is of enormous value in the way of opening up, developing, and protecting the country. It was not constructed as a commercial project but to combat the slave trade which flourished beyond the reach of the British warships. To-day the Uganda line is the dominant influence of Kenya Colony.

Among the most interesting features are the American bridges, which cross all the great ravines between Nairobi and Lake Victoria. Every bit of steel and every bolt and rivet in them was made by American workmen in American factories, and taken out here and put up under the superintendence of Americans. This was because of John

Bull's desire to have the work done quickly and cheaply and at the same time substantially. While he had been laying the tracks from here to the sea our bridge companies had surprised the English by putting up the steel viaduct across the Atbara River in the Sudan within a much shorter time and far more cheaply than the best British builders could possibly do. Therefore, when the British Government asked for bids for these Uganda bridges, they sent the plans and specifications to the English and to some of our American firms as well. The best British bids provided that the shops should have two or three years to make the steel work, and longer still to erect it in Africa. The American Bridge Company offered to complete the whole job within seven months after the foundations were laid, and that at a charge of ninety dollars per ton, to be paid when all was in place and in working order. This price was about half that of the British estimates and the time was less than one third that in which the eight bridges already constructed had been built, so the American company got the contract. It carried it out to the letter, and had the government done its part, the work would have been completed in the time specified. Owing to delays of one kind and another, it really consumed five months longer, but it was all done within the space of one year, which was just about half the time that the British contractors asked to get their goods ready for shipment.

The English were surprised at how easily and quickly the Americans carried out their contract and how little they seemed to make of it. A. B. Lueder, the civil engineer who was sent out to take charge of the construction, was little more than a boy and had graduated at Cornell University

only a year or so before. There were about twenty bridge builders and foremen from different parts of the United States, and a Pennsylvania man named Jarrett who acted as superintendent of construction. Arriving at Mombasa in December, 1900, these men had completed their work before the following Christmas. They acted merely as superintendents and fancy workmen. All the rough labour was done by East Indians and native Africans, furnished by the British. When the road was started, the government planned to use only Africans, but finding this impossible, they imported twenty thousand coolies from India. The coolies came on contracts of from two to five years, at wages of from four to fifteen dollars a month and rations. The native labourers were paid about ten cents a day.

Before the workmen from the United States arrived here a large part of the bridge material was already in Mombasa. The Americans left one man there to see that additional materials were forwarded promptly, and came at once to the scene of action. They put up the bridges at the rate of something like one a week, and constructed the longest viaduct in sixty-nine and one half working hours.

What they did forms one of the wonders of civil and mechanical engineering. The bridge material was so made that its pieces fitted together like clockwork, notwithstanding the fact that it was put into shape away off here, thousands of miles from the place of construction and in one of the most uncivilized parts of the world. The materials in the viaducts included about half a million feet of southern pine lumber and over thirteen million pounds of steel. The steel was in more than one hundred

thousand pieces and the heaviest piece weighed five tons. The average weight was about one hundred pounds. The greatest care had to be taken to keep the parts together and in their own places. Every piece was numbered and those of different bridges were painted in different colours. At that, it was hard to keep all the parts together, for, since most of the natives here look upon steel as so much jewellery, it was all but impossible to keep them from filching some of the smaller pieces for ear bobs and telegraph wire to make into bracelets.

Besides all the other tremendous difficulties in building this road, there were the wild beasts. There are a hundred places along it where one might get off and start up a lion. Rhinoceroses have butted the freight cars along the track, and infest much of the country through which it goes. I was shown a station yesterday where twenty-nine Hindus were carried off by two man-eating lions. Night after night the man-eaters came, taking away each time one or two of the workmen from the construction camp. They were finally killed by an English overseer, who sat up with his gun and watched for them.

It was not far from this station of Nairobi that a man was taken out of a special car while it stopped overnight on the side track. The windows and doors of the car had been left open for air, and the three men who were its only inmates had gone to sleep. Two were in the berths while the other, who had sat up to watch, was on the floor with his gun on his knees. As the night went on he fell asleep, and woke to find himself under the belly of a lion. The beast had slipped in through the door, and, jumping over him, seized the man in the lower berth and leaped out of the window, carrying him along. The other two men

followed, but they failed to discover the lion that night. The bones of the man, picked clean, were found the next day.

An interesting "by-product" of the construction of the Uganda road has been the development of the native labourer. Twenty years ago the saying was: "Native labour is of little value, no dependence can be placed upon it, and even famine fails to force the tribesmen to seek work." To-day that opinion has yielded to the belief that, if he is properly trained and educated to it, the native can supply labour, skilled and unskilled, for all manufacturing and industrial enterprises of Kenya Colony. Remarkable progress in industrial education is shown by the nine thousand African workers on the Uganda line.

CHAPTER XXXI

THE CAPITAL OF KENYA COLONY

NAIROBI is the capital and administrative centre of Kenya Colony, one of the most interesting and prosperous of Great Britain's African possessions. It lies three hundred and twenty-seven miles from the sea in the very heart of British East Africa, about halfway between the Indian Ocean and Lake Victoria. It is situated on a plateau at an altitude higher than Denver, with mountains in sight far above any we have in Colorado.

When the sun is just right at Nairobi, I can get a glimpse here of Mt. Kilimanjaro and I can plainly see the peak of Mt. Kenya. Kilimanjaro is about a hundred and fifty miles distant and Kenya, as the crow flies, not more than one hundred miles. It is from Mt. Kenya that Kenya Colony is named. Mt. Kenya is one of the giants of the African continent, and is only three thousand feet lower than our own Mt. McKinley. It is a dead volcano and is supposed to have once been three thousand feet higher than it is now. The great peak, seamed with no less than fifteen glaciers, is a mass of rocks covered with snow, but the lower slopes are heavily wooded with forests of cedar, camphor, and bamboo. Above the woods are pastures fit for sheep, while in and below them are all sorts of wild game, including lions and elephants, and even rhinoceroses and hippopotami.

In some respects Nairobi reminds one of our frontier towns of the West. The high plain upon which it is situated has a climate in which white men can live and work the year around, and farms are springing up almost everywhere.

The city is comparatively new. Fifteen or more years ago it had hardly a house. To-day streets have been laid out over an area ten miles in circumference and hundreds of buildings of tin, wood, and stone have been erected. The chief building material is galvanized iron, which is so prevalent that Nairobi has been nicknamed the "tin city." There are no saw mills or planing mills worth mentioning, as the forests have not been exploited, and about the only lumber available is that brought from the United States and Norway and landed at Mombasa. The ocean freight rates are heavy, and in addition there is the cost of bringing the lumber to Nairobi by railroad. Hence the galvanized iron, which comes here in sheets from England and Belgium. Almost all the buildings are of iron, put up just as it comes from the factory, giving the whole town a silver-gray colour. The post office is of iron, the depot has an iron roof, and the same is true of the governor's offices. Many of the houses have iron ceilings and iron walls, and the chief retail business section is a collection of one-story iron booths, open at the front, in which Hindus stand or sit surrounded by their goods. My hotel is half iron. The government treasury near by, a shed not over fifteen feet square, is of tin and has a tin roof. I could chop it to pieces with a butcher knife; and the only sign of policing about it is the Negro who, gun in hand, stands outside guarding the door. The office of the land surveyor is of tin, and so are the police head-

quarters and the house where the supreme court is held. The more fancy dwellings are now being painted, and some stone and brick buildings are rising.

The Nairobi of to-day is largely cow pastures. It is a city of magnificent distances. All the places of importance seem to be several miles from each other and the patches between are often grazing ground. The houses are of one and two stories, and are scattered along wide streets which run for an indefinite distance out into the prairie. The chief ways of getting about are on foot, on horseback, or in jinrikishas, the last being by far the most popular. The jinrikishas are much like those used in Japan, save that they are larger and wider. I am told they are made in America. They are pushed and pulled by black Africans, two to each vehicle. One man goes in the shafts and the other pushes behind. They are each clad in a single cotton cloth which flaps back and forth as they run, exposing their nakedness. The streets are unpaved and frequently masses of dust. Along many of them eucalyptus trees have been planted and have grown so rapidly that most of the roads are now shaded by this mournfully drooping foliage.

The population of Nairobi is about twenty thousand, of which only a tenth are Europeans. Of the remainder, about a third are Asiatics from Hindustan, and the others are the queerest Africans one can imagine. I speak of them first, because they are everywhere; one stumbles over them on the street; they wait upon him in the hotels; they carry burdens for him and clog his footsteps when he goes outside the town. Many of them wear dirty, greasy cloths not more than a yard wide and two yards long. They hang them about their shoulders and let them fall

Nairobi, on a plateau higher than Denver, is the administrative centre of Kenya Colony and a healthful place for white men. Farms are springing up about it, and there are already 2,000 Europeans in this African outpost.

"My room at the Norfolk looks out on a stable yard where a baby lion as big as a Newfoundland dog is tied up. He is much too playful to suit me and, besides, he roars at night."

In Nairobi the popular way to travel is in jinrikishas much like those of Japan but sometimes made in America. Two good-natured Negroes man each one and sing a monotonous song as they trot uphill and down

down on each side, so that they flap this way and that in the breeze. Some wear breech cloths, and not a few are bare to the waist. In the early morning, when the air is still sharp, many of these people, clad in red flannel blankets, go stalking along with their legs uncovered to the thighs. I have already spoken of the ear plugs. Some have the holes in the lobes of their ears so stretched that I can put my fist through them. The loops are so long that when a man takes out his ear plug he hangs the loop of skin over the top of his ear to prevent its catching on something and tearing. The loop looks just like a leather strap about as wide as one's little finger nail. I have handled many of them, twisting them this way and that to be sure they were genuine.

The African smell is everywhere. It burdens the air of the market places, and I verily think it might be chopped up into blocks and sold as a new kind of phosphate. The natives cover themselves with hair oil and body grease, and the combination of this when it turns rancid with the natural effluvia which exhales from their persons is indescribable. Some of the blacks smear their faces with a mixture of grease and red clay, and cover their hair with the same material, so that they look more like copper Indians than Africans.

These Africans do all the hard work of Nairobi. They are hewers of wood and drawers of water. I see scores of them, carrying baskets of dirt on their heads and bundles of wood on their backs and pushing and pulling carts and wagons through the streets. Most of my trips from one place to another are made in two-wheeled carts hauled by wire-bedecked natives.

The retail business is done by East Indians, as is also

the case at Mombasa. I am told this is so in every settlement on this part of the continent. The Hindus have made their way along all the travelled routes, until their little stores may be found in every large African village. They have trading stations upon Lakes Victoria and Tanganyika. They are very enterprising, and as they live upon almost nothing they can undersell the whites. They sell cotton of bright colours and of the most gorgeous patterns, wire for jewellery, and all sorts of knickknacks that the African wants. They deal also in European goods, and one can buy of them almost anything from a needle to a sewing machine. Here at Nairobi there is an Indian bazaar covering nine acres which is quite as interesting as any similar institution in Tunis, Cairo, Bombay, or Calcutta. The stores are all open at the front, and the men squat in them with their gay goods piled about them. These Hindus dress in a quaint costume not unlike that of the English clergyman who wears a long black coat buttoned up to the throat. The only difference is that the Hindu's trousers may be of bright-coloured calico, cut very tight, and his head may be covered with a flat skullcap of velvet embroidered in gold. Moreover, his feet are usually bare.

But Nairobi is a British city, notwithstanding its African and Asiatic inhabitants; the English form the ruling class. They are divided into castes, almost as much as are the East Indians. At the head are the government officials, the swells of the town. They dress well and spend a great deal of time out of office hours playing tennis and golf, which have already been introduced into this part of the black continent. They also ride about on horseback and in carriages, and manage to make a good show upon very

low salaries. Allied to them are the sportsmen and the noble visitors from abroad. A scattering element of dukes, lords, and second sons of noble families has come out to invest, or to hunt big game. They are usually men of means, for the prices of large tracts of land are high and it also costs considerable money to fit out a game-shooting expedition. In addition, there are land speculators, who are chiefly young men from England or South Africa. Dressed in riding clothes, big helmet hats, and top boots, they dash about the country on ponies, and are especially in evidence around the bars of the hotels. There are but few white women here. Some of the government officials have their wives with them, and now and then a titled lady comes out to hunt with her friends. I met three women who had themselves shot lions.

Nairobi has English doctors, dentists, and lawyers. It has one photographer and two firms which advertise themselves as *safari* outfitters. These men supply sportsmen with tents, provisions, and other things for shooting trips, as well as porters to carry their stuff and chase the lions out of the jungles so that the hunters may get a shot at them.

It seems strange to have newspapers under the shadow of Mt. Kenya, and within a half day's ride on horseback to lion and rhinoceros hunting. Nevertheless, Nairobi has three dailies, which also issue weekly editions. They are all banking on the future of the town and all claim to be prosperous. They are good-sized journals, selling for from two to three annas, or from four to six cents each. They have regular cable dispatches giving them the big news of the world, and they furnish full reports of the local cricket, polo, tennis, and golf matches.

As for the advertisements, most of them come from the local merchants and some are odd to an extreme. One of to-day's papers carries an advertisement signed by a well-known American circus company which wants to buy a white rhinoceros, a giant hog, some wild dogs, a wild-tailed mongoose, and a bongo. Another advertisement, one made along farming lines, is that of the Homestead Dairy, and others state that certain merchants will outfit hunters for shooting. There are many land sales advertised, as well as machinery, American wagons, and all sorts of agricultural implements.

Nairobi has several hotels, the accommodations in which are comfortable. I am stopping at the Norfolk at the upper end of the town. It is a low one-story building with a wide porch in front, separated from the dirt street by a picket fence, and shaded by eucalyptus trees through which the wind seems to be ever sighing and moaning. The charges are three dollars and thirty-three cents a day, including meals, but I have to have my own servant to make my bed and run my errands. I have a room at the back with a fine view of the stable. A German sportsman next door has a little cub lion, about as big as a Newfoundland dog, tied in a box outside his window. During a part of the day he lets the baby lion out, and ties him by a rope to one of the pillars of the porch. The animal seems harmless, but its teeth are sharp, and it is entirely too playful to suit me. Besides, it roars at night.

The horses are fairly good here, but the charges for them are steep. When I ride out on horseback it costs me a dollar and sixty-five cents an hour, and the carriage rates are still higher. The best way to get about

To be a Swahili, a professing Mohammedan, and boy to a white man give three strong claims to distinction in African society. This chap is proud of his white men's clothes and will steal soap to wash them.

Many Europeans have taken up farms in the vicinity of Naivasha, where the flat, grassy land is suitable for sheep. Though almost on the Equator, the altitude of more than 6,000 feet makes the climate tolerable for white men.

John Bull designs his public buildings in Africa with a view to making an impression on the native. His Majesty's High Court of Kenya Colony, sitting at Mombasa, administers both British and Koranic laws.

is in the jinrikishas, using the natives as beasts of burden, but for a long ride over the plains horses are necessary.

The heavy hauling of this part of East Africa is done mostly by the sacred cattle of India. I mean the clean-cut animals with great humps on their backs. They are fine-looking and are apparently well-bred. Some of these beasts are hitched to American wagons brought out here from Wisconsin. I saw such a team hauling a Kentucky plough through the streets of Nairobi yesterday.

Indeed, I find that American goods are slowly making their way into these wilds. American axes and sewing machines, and American sowers and planters are sold by the East Indians. The drug stores carry our patent medicines and every market has more or less American cottons. The wood cutters are using American axes, but they complain of the flat or oval holes made for the handles. They say that a round hole would be better, as the natives who do the wood cutting are very clumsy and the handles snap off at the axe. If round holes were used, heavier handles could be put in and the Negroes could make them themselves.

Nairobi promises to become one of the railroad centres of this part of the world. It is the chief station between the Indian Ocean and Lake Victoria, and a road is now proposed from here to Mt. Kenya. The Uganda Railway goes through some of the poorest country in the colony, and the Mt. Kenya road will open up a rich agricultural region which is thickly populated by tribes more than ordinarily industrious. The railroad shops are here, and the employees have a large collection of tin cottages for their homes. The headquarters of the railroad, where

the chief officers stay, are one-story tin buildings. The telegraphic offices are connected with them.

Both railroad and telegraph are run by the government. The telegraphic rates are comparatively low. Far off here in the jungles of Africa one can send messages much more cheaply than in the United States. A message of eight words from here to Uganda costs thirty-three cents, and one can telegraph to London about as cheaply as from New York to San Francisco. This is so notwithstanding the difficulty which the linemen have to keep up the wires, which the jewellery-loving natives steal. During the Nandi rebellion, forty-odd miles of it were carried away and never recovered, and in one of the provinces adjoining Uganda, above Lake Victoria, the natives are so crazy after the copper wire there used that it is almost impossible to keep the lines in shape.

Another serious danger to the telegraph is the big game. The giraffes reach up and play with the brackets and pull the wire this way and that. At Naivasha the hippopotami have once or twice butted down the poles, and I hear they have been doing considerable damage to the lines along the coast near the Tana River. In the heart of Uganda the monkeys have a way of swinging on the wires and twisting them together, which stops the transmission of messages, so that the way of the lineman is indeed hard.

CHAPTER XXXII

JOHN BULL IN EAST AFRICA

I HAVE just had a long talk with Mr. Frederick J. Jackson, the acting governor and commander-in-chief of this big territory which John Bull owns in the heart of East Africa. Mr. Jackson came out here to hunt big game years ago, and he has been on the ground from that time to this. He has long been employed by the British Government in the administration of Uganda and of the protectorate of East Africa, and he is now lieutenant-governor in the absence of Colonel Sadler, the acting governor of the country.

Let me give you some idea of this vast region which the British are opening up in the midst of the black continent. This country altogether is larger than the combined states of Ohio, Indiana, Illinois, and Wisconsin. It has a population of four million natives, most of whom not so long ago were warring with one another. Some of the tribes made their living by preying upon their neighbours. Slavery was everywhere common, and one of the great slave routes to the coast was not far from the line where the Uganda railway now runs. To-day all these evils have been done away with. The warlike tribes have been conquered, and are turning their attention to stock raising and farming. Slavery has been practically abolished, and peace prevails everywhere. The whole country is now kept in good order by only

about eighteen hundred police and less than two thousand English and East Indian soldiers. A large part of the region along the line of the railroad has been divided into ranches and farms. Small towns are springing up here and there, and in time the greater part of the plateau will be settled.

There is no doubt that white men can live here. The children I see are rosy with health, and the farmers claim that, with care, they are as well as they were when back home in England. There are some Europeans here who have had their homes on the highlands for over twelve years, and they report that the climate is healthful and invigorating. They are able to work out of doors from six until ten o'clock in the morning and from three to six o'clock in the afternoon, and during a part of the year all the day through. As a rule, however, the sun is so hot at midday that one should not go out unless his head is well protected. The heat here is dry. The nights are usually so cool that a blanket is needed. Notwithstanding the fact that we are almost on the Equator, at any altitude above eight thousand feet ice may be found in the early morning. Nearer the coast the land drops and the climate is tropical. For two hundred miles back from the Indian Ocean there are practically no white settlers, except at Mombasa, for it is only on this high plateau that they are as yet attempting to live.

But let me continue my description in the words of the man who governs the country. My conversation took place in a long, blue, iron-roofed building known as the Commissioner's office, situated on the hill above Nairobi. I had asked as to the colony's future. Mr. Jackson replied:

"It is all problematical. We have an enormous terri-

Not long ago the great plateau of Kenya Colony was inaccessible and unknown and its four million blacks were in continual war with one another. Now, besides the railway, it is being opened up with roads permitting the use of motor transport.

Each group of huts is usually surrounded by a thatched wall, making an inclosure into which cattle, sheep, and goats are driven at night. Some of the tribes are practically vegetarians, living mostly on corn, beans, sweet potatoes, millet, and milk.

tory and millions of people. We have not yet prospected the country, nor have we dealt long enough with the natives to know what we can do with the people. We have really no idea as yet as to just what our resources are, or the labour we can secure to exploit them."

"How many inhabitants have you?"

"We do not know. We can get some idea from the taxes, for most of the provinces have to pay so much per hut. In other places the natives have hardly been subdued, and of no province have we an accurate census. The number has been estimated at from two to four millions, but I believe it is nearer five millions, and possibly more."

"How about your white settlers? Will this country ever be inhabited by Caucasians?"

"That, again, is difficult to say," replied the conservative governor. "We have a few European settlers already, but whether we can make this colony a second South Africa remains to be seen. I have lived here for over twenty years, and I am not sure as to how much hard manual labour any white man can do in this latitude. It is true we are more than a mile above the sea, but nevertheless we are on the Equator, and the climate on the Equator is not suited to the white man. The only Europeans who will succeed here will be those who bring some money with them, and who will use the native labour in their work. I don't think any settler should come to East Africa without as much as three thousand dollars, reckoning the amount in your money. He should have enough to buy his land, stock it, build his house, and then have something to go on. He should not start out with a very small tract. Much of the grazing land is now being divided up into tracts of five thousand acres. If a man

takes the first thousand and pays for it, the other four thousand are held for him subject to certain improvements and developments upon the first thousand. After these are completed he may buy the remaining tract at the price of the first thousand acres."

"I understand much of your land is being taken up in large holdings."

"That is so to a certain extent," replied Mr. Jackson, "but we are now discouraging such allotments, and would rather have the land apportioned in tracts of from six hundred and forty acres to about five thousand acres each. If the land is for grazing the larger area is desirable. If it is for grain farming or dairying, it is better that it should be small. As to our large landholders, the British East African Company owns about five hundred square miles, Lord Delamere has about one hundred thousand acres, and Lord Hindlip a little less. There are a number of settlers who have twenty thousand acres or more."

"How about your ranching possibilities? I understand that your stock growers expect to found a great meat industry here which will crowd our Chicago packers out of the markets of England."

"I do not think there is room for alarm about that matter as yet," replied the official. "This country is just in the making, and we know practically nothing about it. We realize that we have some of the richest grasses of the world—grasses which have supported vast herds of game, and upon which cattle, sheep, goats, and hogs will thrive. But we do not know whether we can conquer the diseases and insect pests which attack all the animals we have so far imported. We seem to have every disease to which cows, horses, or sheep are subject in other parts

of the world, and I believe we have some peculiarly our own. We have ticks by the millions and flies by the myriads. So far, however, our experiments with cattle are turning out well, and we know that we can produce excellent beef and good butter. We hope to find our first market for our meats and dairy products in South Africa, and later on to ship such things to Europe. The creation of an industry of that kind, though, is a matter of gradual development. We shall have to arrange about proper transportation, which means cold-storage cars and cold-storage ships. We have not gone far enough as yet to be able to predict what we can do."

"What other possibilities have you?" I asked.

"I think we may eventually be able to raise coffee, and we are already exploiting certain fibres which grow well between here and the coast. The plant which produces the Sansivera fibre is indigenous to this country and is being exploited by Americans who are working not far from the station of Voi, about one hundred miles from the Indian Ocean. I have no doubt we can raise sisal hemp, and know that we can grow ramie without cultivation.

"As to minerals, a great deal of prospecting has already been done, but the results have not been satisfactory. We know that we have gold, silver, and copper, but the deposits so far discovered have not been valuable enough to pay for their mining. This whole country is volcanic. We lie here in a basin surrounded by volcanoes. We have Mt. Kenya on the north, Kilimanjaro on the south, and Mt. Elgon away off to the northwest. The eruptions of these mountains have been so comparatively recent that some believe that they have buried the

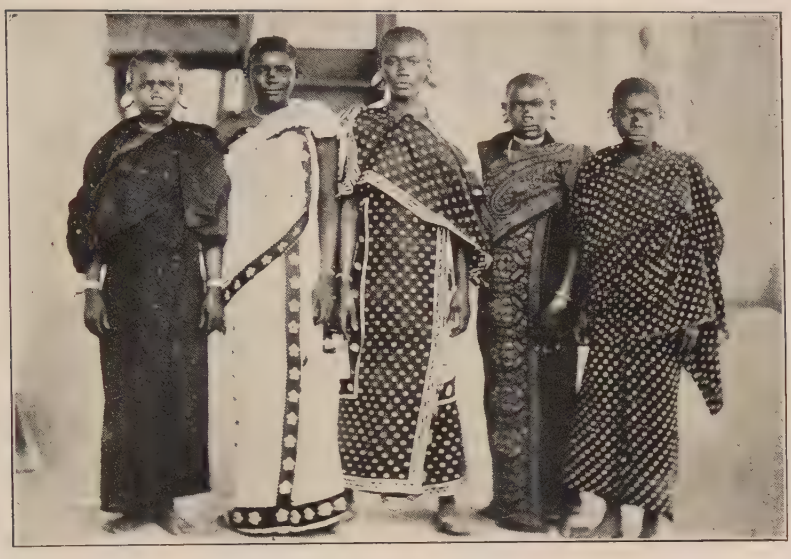
precious metals so deep down in the earth that we shall never get at them."

"How about your timber?"

"We have fine forests, containing both hard and soft woods, among them a great deal of cedar such as is used for making cigar boxes and lead pencils. Most of such wood, however, is inland and at long distance from streams upon which it could be floated down to the sea. At present, our timber resources are practically inaccessible by railroad."

Speaking of the possibilities of this East African colony, it may be one of the coffee lands of the future. Several plantations which have been set out not far from here are doing well. There is one coffee estate within five miles of Nairobi which belongs to the Catholic Mission of the Holy Ghost. Yesterday I rode out on horseback over the prairie to have a look at it. The way to the estate is through fenced fields, which are spotted here and there with the sheet-iron cottages of English settlers. As I rode on I saw many humped cattle grazing in the pastures. The grass is everywhere tall and thick, and the red soil, although not much cultivated as yet, seems rich.

Arriving at the plantation, I was met by Father Tom Burke and walked with him through his coffee plantation. It covers something like fifteen acres, and has now more than eight thousand trees in full bearing. The yield is so good that the plantation is supplying not only the town of Nairobi with all the coffee it needs, but is shipping several tons every year to Europe. Father Burke tells me that the coffee trees begin to bear at a year and a half, and that they are in full bearing within about four years. As the ripening season is long, the berries have to be picked many



Contact with the white man's institutions of work, wages, and money usually leads to an interest in clothing. The demand from East Africa will some day add millions of yards of cotton cloth to the output of American mills.

The Kikuyus are highlanders and number more than a million. The men coat their bodies and fill their hair with rancid fat and coloured clay, giving themselves a weird appearance and a worse smell.

Cattle are the wealth of such tribes as the Masai, who own great numbers of them. The young men especially covet them, for cattle buy them brides. Sometimes the horns measure fifty-four inches from tip to tip.

times. I saw blossoms and green and ripe berries on the same tree. In one place the natives were picking, at another they were hoeing the plants, while in a third place they were pulping the berries in a pulper turned by hand. The trees seem thrifty. Father Burke says that the young plants grow easily, and that where the birds carry the berries away and drop the seeds the plants will sprout up of themselves. There is a plantation near by of thirty thousand trees, and I am told that there is a fair prospect of a considerable coffee industry springing up.

I saw many Negroes at work in the fields. They were Kikuyus, and were really fine-looking fellows. They were clearing up new ground, chopping down the weeds with mattocks, and digging up the soil and turning it over. The sweat stood in beads upon their brows and backs and ran down their bare legs. I asked the priest what wages they got, and was told that they each received the equivalent of about five cents for a day of ten hours. I suggested to the reverend father that the pay was small, but he said that the natives could not earn more than that sum and even at those wages it was difficult to keep them at work.

I hear this same statement made everywhere. The English people here think that the native Africans are well enough paid at the rate of a half cent per hour or of a rupee per month. If you protest they will say that that sum is sufficient to supply all the wants of a black man and ask why he should be paid more. Think of it, ye American toilers who belong to our labour unions. Think of five cents a day for carrying bricks or stone, for chopping up ground under the eyes of a taskmaster, or for trotting

along through the grass, hour after hour, with a load of sixty pounds on your head! Think of it, and you may get an idea of how the English white man here is carrying the black man's burden! Indeed, as the Frenchman says, "it is to laugh!"

CHAPTER XXXIII

WITH THE BIG-GAME HUNTERS

KENYA COLONY is in the land of big game, and Nairobi is the chief place where parties are fitted out for hunting. As I write this chapter several large parties are here preparing to go out "on safari," as such hunts are called. The Norfolk Hotel is filled with hunters and behind it are scores of black, half-naked porters and tent boys, packing sporting goods into boxes, laying in provisions and arranging things for the march. There are headmen rounding up the porters and giving each his load. There are gunbearers seeing to the arms and ammunition, and there are the sportsmen themselves, some clad all in khaki, some wearing riding breeches and leggings, and all in thick helmets.

First in the normal personnel of a *safari* comes the headman, who is supposed to be in full charge, except for the gunbearers and tent boy, who are personal servants and under the immediate direction of their masters. The *askaris* are armed soldiers to guard the camp at night and look after the porters on the route. There is one *askari* to every ten or twenty porters. The cook has a staff of assistants. Each sportsman's tent boy must look after his tent and clothing and serve him at meals. The *syces*, or pony boys, look after the horses and equipment.

In the big yard upon which my hotel rooms look I can see piles of tusks, heads, horns, and skins brought in by

parties which have just returned, and in one corner is the baby lion whose roars have pestered my sleep. Among the hunters are several eminent and titled English men and women, some of the latter having come out to try a shot at a lion or so. During this last year two women have shot lions here, and one of the biggest man-eaters ever killed in East Africa came down through a bullet from a gun in the hands of an American girl.

There is so much game that almost any one who goes out can bring back something. Last year's bag, numbering many thousand head, was shot by sportsmen from England, France, Germany, Austria, Italy, India, Australia, North America, and New Zealand. We have all read the stories of Theodore Roosevelt who shot lions and elephants here and in Uganda, and we know that British East Africa has supplied the Chicago Museum and the National Museum at Washington with some of their finest zoölogical specimens.

The hunting laws here are rigid. No one can shoot without a license, and the man who kills young elephants, cow elephants, or baby giraffes will pay a big fine and spend a long term in jail. Shooting big game is regulated by license.

The sportsman's license, with certain restrictions, gives the right to shoot or capture two bull buffaloes, four lions, one rhinoceros, two hippopotami, ten Colobi monkeys, four marabout, and a limited and specified number of other game, such as antelope, bongos, reedbucks, and cheetahs. A special license costing a hundred and fifty rupees, about fifty dollars, is required for one elephant, while the privilege of killing two elephants costs three times as much. Only two elephants are allowed every year.

"Some of the zebras are within pistol shot of my train. Their black and white stripes shine in the sunlight. They raise their heads as the train passes, then continue their grazing."

While game is abundant it is also protected by rigid laws. Every hunter must have a license and none may shoot more than four lions. A special license is required to kill the maximum of two elephants a year.

Sportsmen of a dozen different nationalities come here every year to hunt the giraffes and all sorts of other big game, which is so plentiful that almost any one can get something. Women are often included in the hunting parties.

It costs fifty dollars to get a permit to kill or capture a giraffe and the hunter is allowed only one a year. A traveller's license, available for a month, costs five dollars and gives the right to kill or capture four zebra and not over five antelopes out of eight named varieties. Animals killed on private land on either the traveller's or sportsman's license do not count in the total authorized. A register must be kept of all kills or captures under license. As for leopards and crocodiles, no permit is required to shoot them.

There is such a great variety of game that there is no need of chasing over the swamps or tramping about over the plains for days before one gets a shot. One sees a dozen different kinds of beasts on the plains at the same time, and can change his sport from day to day. The sportsman will find antelopes almost everywhere and will not infrequently be in sight of an ostrich or so. These birds are big game and are hunted largely on ponies. They are very speedy, and, however it may be elsewhere, here they do not poke their heads down in the sand and wait for the hunter to come. On the other hand, they spread out their wings and go off on the trot, swimming, as it were, over the ground. They can run faster than a horse, but they actually run in large circles and the hunters catch them by cutting across the arcs of the circles or running around in smaller circles inside. It is a great thing here to shoot a cock ostrich in order that you may give your sweetheart or wife the beautiful white feathers from his wings.

And then there is the zebra! His black and white stripes shine out so plainly in the brilliant sun that he is to be seen by the thousand on the Athi plains, and not far from the

railroad all the way from Voi to Uganda—a distance greater than from New York to Pittsburgh. Had it not been against the law, I could have picked off some with my revolver as I rode through on the cars. The zebra is rather shyer when found far from the railroad, but on the whole he is easy to kill. Away from the game reservations on the railroad he will run like a deer, and as zebras usually go in droves the excitement of following them over the plain is intense. Zebra skins tanned with the hair on are fine trophies, and I am told that zebra steak is excellent eating. The flesh tastes like beef with a gamier flavour. The animals are so beautiful, however, and so much like horses, that only a brute would kill them for sport.

In hunting elephants many a sportsman makes enough to pay a good share of his African expenses. He can shoot only two bull elephants, but if he gets good ones their four tusks may bring him fifteen hundred or two thousand dollars. The African elephants have the largest tusks of their kind. I have seen some which weighed one hundred and fifty pounds each, and tusks have been taken which weigh up to two hundred pounds. African ivory is the best and fetches the highest prices. It is difficult to get the tusks out. The porters may be half a day chopping away the meat, and it will take about four men to carry a tusk of the size I have mentioned. There are men here who hunt elephants for their ivory, but most of the licenses are issued to sportsmen, who care more for the honour of having made a good shot than anything else.

One of the best places to shoot an elephant is through the eye or halfway between the ear and the eye. Another

good shot is just back of the flap of the ear, and a third is in a place on one side of the tail so that the ball will run along the spine and enter the lungs. Large bullets and heavy guns are used. When the animal is close it is exceedingly dangerous to shoot and not kill. When injured the elephant is very revengeful. He will throw his trunk into the air, scream, hiss, and snort and rush after the hunter, knocking him down with a blow of his trunk and charging upon him with his great tusks. If the man falls, the huge beast is liable to kneel upon him and mash him to a jelly.

One of the difficulties of hunting elephants is the fact that it is not easy to distinguish them in the woods, as they are of much the same colour as the trees. A traveller here tells me that he once almost walked into a big elephant while going through the forest. He was stooping down and looking straight before him when he saw the beast's legs and took them for tree trunks.

The average elephants of this region can easily make six miles an hour while on the march. They usually travel in herds, young and old moving along together. Notwithstanding their enormous weight, the animals can swim well, and can cross the largest rivers without any trouble.

Most of those which used to overrun these plains have been driven away and must now be hunted in the woods; but there are plenty in the forests between here and Uganda, and about the slopes of Mt. Kenya and Mt. Kilimanjaro. There are also many in the south near the Zambezi, and west of Lake Tanganyika, in the forests along the Congo. Some years ago they were being killed off at such a rapid rate, and the ivory output was de-

creasing so fast, that strict rules for their preservation were inaugurated and are being enforced.

As for hippos and rhinos, there are plenty of them still left along the streams and about the great lakes of the tropical parts of the continent. There are rhinoceroses almost everywhere in the woods between Nairobi and Uganda. I have seen a number of hippos, and were I a hunter, which I am not, I could, I venture to say, bag enough of their hides to make riding whips for all the hunt clubs of Virginia. The settlers tell me the animals come in and root up their gardens, and that it is almost impossible to fence against them.

Both rhinos and hippos are hard to kill. Each has a skin about half an inch thick, and there are only a few places upon them where a ball will go through. Hippos can be hunted in boats on the lakes, but they swim rapidly and dive deep, remaining under the surface a long time. They move along through the water, showing only their ears and nose. They are so wary that it is difficult to get a shot at just the right place. One of the best points at which to aim is under the eye or back of the head between the ears. These animals are sometimes harpooned, but such hunting is dangerous, as they are liable to crush one's boat.

The rhinos also have to be approached very carefully. They have a keen sense of smell, although they cannot see to any great distance and their hearing is not good. They are usually hunted on foot, and one must be careful to get on the windward side of them. A rhinoceros does not hesitate to charge an enemy. He uses the great horn on his nose, which is a terrible weapon, and enables him to kill a horse at one blow. Most of these beasts are black, but

now and then a white one is found. I met a man the other day who claimed to have killed a white rhinoceros.

Since I have been in Africa I have received a number of letters from American sportsmen asking the cost of shooting big game in this part of the world. The question is hard to answer. It depends on the man and to some extent on the bargains he makes. There are business firms in Nairobi and in Mombasa which specialize in outfitting hunting parties, making all arrangements for guides, food, and porters somewhat as Cook does for tourists. The prices, in such cases, depend upon the length and character of the tour and the size of the party. There is a young American here now whose mother calls him "Dodo," who paid five hundred dollars for a three days' hunt after leopards, and this did not necessitate a permit, as they are on the free list. The young man tramped about with his porters through the tall grass, and was given a shot or so at two leopards, both of which he missed. Had he tried for big game it would have cost him at the least two hundred and fifty dollars more.

On a long hunt the expenses of all kinds can be considerably reduced, and I should think that forty dollars a day for each sportsman in the party would be a fair estimate. I am told that a man can be fitted out with porters, gunbearers and personal servants for two hundred and fifty dollars a month. One can get a good cook for from five to eight dollars a month, a gunbearer for about ten dollars, and a personal servant for from eight to ten dollars.

The question of provisions for the trip depends much upon the tastes of the individual sportsman. There are native villages almost everywhere at which some fresh

food can be bought at cheap rates. Chickens are plentiful at eight cents a pound and meats cost the same. In the streams and lakes there are fish; the guns of the party ought to supply plenty of game; and one need never suffer for the want of antelope or zebra steak.

Other food should be packed up in boxes of sixty pounds each; and in case the outfit is prepared at Nairobi, each box will have sufficient for one man's requirements for one week. Most of the stuff is in tins, and usually includes plenty of Chicago canned beef, Canadian bacon, and London biscuits, jams, and marmalades. Such boxes are labelled with numbers, No. 1 containing the first week's supply, No. 2 the second week's, and so on. Each box weighs just sixty pounds, as no more than that can be carried on the head of one porter.

I would advise the American sportsman who intends coming out here to shoot, to stop off on the way in England for most of his supplies. Several London firms make a specialty of outfitting for African travel and for hunting expeditions. One should have double-roofed tents, the square tents being the best. It will be well to bring a mackintosh or rubber blanket, one foot wider all around than the floor of the tent, for many of the camps may be soggy and marshy. One should also have a folding bedstead, a cork bed, and warm blankets. A folding chair and table will not be found amiss.

CHAPTER XXXIV

AMONG THE KIKUYUS AND THE NANDI

SHORTLY after leaving Nairobi by train for Lake Victoria I came into the land of the Kikuyus, where I stopped off for a while. Over a million of these native people live in the country about two thousand feet above Nairobi. We could see their farms and villages everywhere as we rode by on the railway. In clearing the land they first burn off the trees and other vegetation, then work the ground until it is barren. After that they clear more land, letting the first tracts lie fallow until Nature revives them. Some of the Kikuyu farms are no bigger than a bed quilt; others cover a quarter of an acre, and some twice as much. The fields are not fenced, and now and then a rhino or hippo gets in and wallows, while near the woodlands the monkeys pull up the crops. The chief thing raised is Indian corn.

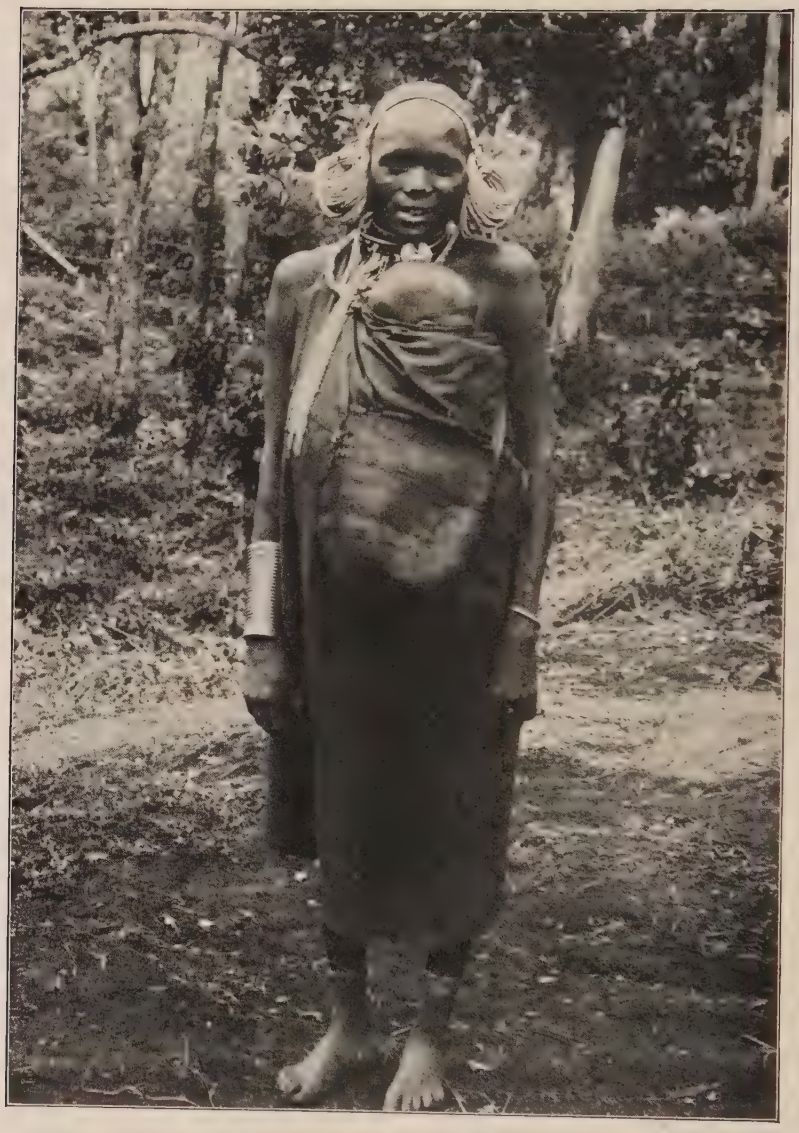
The dress of the Kikuyus consists mostly of grease, clay, and telegraph wire. The grease makes their brown skins shine, the red clay gives it a copper hue, and the telegraph wire loads their arms, necks, and ankles. The grease is usually mutton fat and the clay is the red earth found everywhere. The more rancid the fat the better they seem to like it. The average man or woman so smells to heaven that one can distinguish a native's existence long before he sees him. They soak their hair with this tallow until under the tropical sun you can almost hear the stuff

sizzle. They stiffen their hair with clay so that it can be put up in all sorts of shapes. I examined one man's head the other day. It was a pale brick-rust colour and covered with something like ten thousand individual curls which stood out over his pate like the snakes of the Medusa. Each curl was an inch long and had been twisted by a professional hairdresser.

This man had six long pipe stems in his ears. Each was as big around as a lead pencil and about the same length, and was fastened through a hole made in the rim of the ear by a kind of brass button. These stems standing out at the sides of his head looked almost like horns, save that they projected from the ears. He had beads in the lobes. One of the men with him had the lobe of his ear so stretched that it held a plug as big as an apple. I bought the plug of him for three cents, and the man then took the two lobes of his ears and joined them together under his chin, tying them there with a bit of fibre in order that they might not catch on a branch as he went through the forest.

The Kikuyus live in small villages that look like collections of haycocks until one comes close to them. When one gets inside he finds they contain as many animals as men. The houses are thatched huts built about six feet apart in circles around an inclosure in which the cattle, sheep, and goats are kept at night. The sheep and goats often get inside the huts. Each circle of houses usually belongs to one family, a chief and his relatives thus living together. The huts have wooden walls about four feet high with conical roofs. The boards, which are about eighteen inches or two feet wide, are chopped out of the trees with the native axes. A native and his wives will

From the Uganda and Kenya jungles thousands of pounds of ivory go down to Mombasa. The best tusks come from the uplands of British East Africa, and the ivory from one bull elephant may pay a hunter's expenses.



The Kikuyu woman, as in most African tribes, is privileged to do all of the work. When going to the fields she often carries her baby in a sort of pouch, or sling, suspended from her shoulders.

require about ten days to build a shelter. The wood used is soft, and the kind is regulated by the government, which charges sixty-six cents for enough lumber to build one shack.

Besides its huts, each family has two or three granaries for its supply of Indian corn. These are made with thatched roofs, wicker walls and wicker floors, and are raised a foot or eighteen inches off the ground. They are usually about as big around as a hogshead and six feet high.

The Kikuyus are practically vegetarians. They live on corn, beans, sweet potatoes, and a kind of millet. They have a few cattle and some sheep, but they consider them too valuable to be slaughtered and only eat them when the cattle are sick or become injured in some way and have to be killed. They have no chickens, and eat neither fowls nor eggs. This is because, in the past, the crowing of cocks would give away the locality of a village, thereby bringing down its enemies and the slave traders upon it.

These people have many dishes like ours. They eat roasting ears off the cob, and they boil beans and corn together to make a kind of succotash. They have also a gruel made of millet and milk, and if one of the family becomes sick he is sometimes given mutton broth. In their cooking they use clay jars which they rest upon stones above fires built on the ground. They use gourds for carrying milk and water, and bags of woven bark ranging in size from a pint to four bushels are used for all sorts of purposes. The larger ones serve for the transportation of their grain to the markets.

The Kikuyu looks upon the females of his family as so

much available capital. If a man has fifteen or twenty wives, he is supposed to be rich beyond the dreams of avarice. I hear that many of the chiefs have a dozen or more, and that since the British have begun to exploit the forests, the more industrious of the native men have been rapidly increasing their families. A good girl, large and healthy, will bring as much as fifty sheep. A maiden is supposed to be ready for sale at twelve years, and twenty dollars in cattle or sheep is an average price. For this sum the woman should be large, well formed, and fairly good looking. Homely or lean girls go cheap and often remain single, in which case they have to work for their parents. A man may pay down ten sheep and agree to bring in the balance from month to month as he and his wives earn the money for them. He goes into the woods and cuts down trees, being paid so much per stick. If he works hard, he may make three or four dollars a month, and if, in addition, he has several women to help him, his income may be doubled or trebled.

In such work the men cut the wood and the women carry it on their backs to the market. They are loaded up by their husbands, a piece of goat skin separating the rough sticks from the woman's bare skin, and the burden being tied on by a rope of vines which rests on the forehead. In addition to this goat skin on her back, the woman usually has an apron or skirt of skin tied about the waist and reaching to the knees and sometimes below them. A strong, lusty girl can carry as much as two hundred pounds of wood in this way, and her husband does not scruple to pile on all she can take.

In coming from the plains over the mountains into the Great Rift Valley I rode for miles through the woods and

had a chance to see what the British Government is doing to save the forests.

The wooded area of Kenya extends over three thousand two hundred square miles, of which the tropical forest covers about a hundred and eighty-three square miles, the remainder being upland or highland, containing valuable trees. Transportation facilities are so limited, however, and much of the country is so little known that the British have only made a good beginning in exploiting the timber resources and in scientific forestry work.

Lumber is high. Leaving the Kikuyu hills, one finds that there are woods all the way to the ridge known as the Escarpment and they extend for some distance down the sides of the Rift Valley. Here in the valley itself the country is mostly pasture and there is no timber of any account. In the forest region above referred to the woods are thin, and in many places the original growth has been cleared by the Kikuyus. The government is now prohibiting their practice of burning the wood, and doing all it can to save the trees remaining and to build up new wood lands. I met at Naivasha an Australian, one of the heads of the forestry department, who told me that the government had nurseries at Mombasa, Nairobi, Escarpment, and Landaivi. Near Mombasa they are setting out teak trees, while at Nairobi they have planted a large number of acacia and eucalyptus trees, imported from Australia. The eucalyptus grows well at Nairobi. I saw trees there seventy-five feet high although they were only five years old.

The forest manager told me he was labouring under the greatest of disadvantages in his efforts to raise new trees. He said he had to fight not only the natives, but also the

monkeys, baboons, and other wild animals. The woods are full of monkeys, among them a dog-faced baboon which grows as big as a ten-year-old boy. This creature barks like a dog and acts like a devil. It watches the planting, then sneaks in at night and digs up the trees. If seeds are put in, it digs them up and bites them in two, and if the trees should sprout it pulls the sprouts out of the ground and breaks them up and throws them away. As a result, the nurseries have to be watched all the time by men with guns in their hands. If the men have no guns the baboons will jump for the nearest tree and grin from the branches, only to return to their devastating work as soon as the watchmen go away. If guns are brought out, the animals realize their danger and run for their lives. These monkeys also dig up the Indian corn planted by the Kikuyus, and are said to be far worse than crows and blackbirds combined.

At one of the stations between Naivasha and the Escarpment I saw a half-dozen Nandi, including two women. The men were almost naked, save that they wore cloaks of monkey skins with the fur on and strips of cowskin about the waist. The women had on waist cloths and blankets of cowhides tanned with the hair on. These blankets were fastened over one shoulder, leaving the arms and half of the breasts bare. The Nandi were walking along the railroad track, and were closely watched by the station agents, for they are great thieves, and the British have had trouble with them because they steal the bolts and rivets which hold the rails to the ties, and even climb the telegraph poles after the wire. The native men are crazy for iron. They can use the bolts and rivets for slingshots to brain their enemies. All the iron they have had in the

past has come from digging up the ore and smelting it, so you can imagine how delightful it is to a Nandi warrior to pick up a fine, death-dealing iron bolt all ready for his sling. The Nandi live northwest of Naivasha, on a plateau which contains iron deposits, and they make a business of mining and smelting. Since the railroad has been built, they have come down from time to time and raided the tracks, and the British have had several little fights with them to drive them off.

These Nandi are among the bravest of the African natives. They are much like the Masai, delighting in warfare, and ready to fight at the least provocation. They are more civilized than the Kikuyus, and do considerable work in iron and leather. They have cattle, sheep, and goats, while a few do some farming. Like the Masai, they bleed their cattle and drink the blood hot, sometimes mixing it with their porridge. After bleeding, they close the wounds so that the cattle grow well again. They are good hunters and have large dogs with which they run down the game, so that it can be killed with spears. They also trap game by digging wedge-shaped pits and covering them over with grass. They have donkeys to carry the iron ore from the mines to their furnaces, where they turn it into pig metal.

I understand that the Nandi live about the same as the other natives about here. They have circular huts of boards roofed with thatch Each hut has a fireplace in the centre on each side of which is a little bed consisting of a platform of mud built along the wall of the hut. The people sleep on the mud, using round blocks of wood for pillows. The children sleep with their parents until they are six years of age, when they are shoved off into a smaller

hut outside built especially for them. The Nandi believe in witches and medicine men, and have a sky god to whom they pray every morning and to whom they sacrifice when times are hard.

Nearly all of these Africans believe in witch doctors. The Wakamba, whose country I passed through on my way to Nairobi, not infrequently kill the women of their tribe when they are charged with witchcraft, and there is a record of something like forty having been murdered this way within the last few years.

I saw these Wakamba on the Athi plains and in and about Nairobi. They are tall and fine looking, with woolly hair, rather thick lips, and almost straight noses.

CHAPTER XXXV

THE GREAT RIFT VALLEY AND THE MASAI

IN THE heart of the East African highlands, as far south of the Mediterranean Sea as New York is distant from Denver, and as far west of the Indian Ocean as Pittsburgh is west of the Atlantic, I am writing this chapter. Lake Naivasha, which is spread out before me, is in the Great Rift Valley, a mighty trough that runs almost north and south through this part of the continent. This great rift begins, it is now believed, south of the Zambezi and embraces Lake Rudolf on the north. Traces of it are to be found even in Palestine. It is supposed to have been formed by the earth's folding up after a stupendous volcanic eruption, which left the craters of Kilimanjaro, Kenya, and Elgon touching the clouds at altitudes of from fourteen thousand to nearly twenty thousand feet.

The valley was named by Professor J. W. Gregory, the famous British geologist, who came out to East Africa in order to explore its system of valleys and to discover their origin. For many months he disappeared. There were rumours that he had been killed and cut to pieces by the Masai. But one day he turned up, looking ill and worn but triumphant. The results of his trip were published in a book now historical, "The Great Rift Valley," from which this huge trough got its name. To-day one sees everywhere in this part of the country notices of

"Rift Valley" farms or "Rift Valley" hotels. It is still an objective of scientific explorations and the subject of scientific discussions.

This mighty valley narrows and widens, it rises and falls, and it has many big lakes. Broadly speaking, all the great lakes of East Africa are in it or in its spurs. North of here are Lakes Baringo and Rudolf, and still farther north in Abyssinia is Lake Tsana, the source of the Blue Nile. As I write I am looking out on Lake Naivasha, a beautiful sheet of blue water over which white cranes are flying. I can see zebras and buck feeding not far from the water, and with my glass can watch the ugly black heads of three hippopotami bobbing up and down like giant fishing corks upon the surface. The swampy shores are lined with masses of reeds. Just back of them the ground rises into rich pastures which are protected from sportsmen by the reservations allotted to the Uganda Railway and which fairly swarm with big game.

The weather here is delightful. We are so near the Equator that we can almost straddle it, but the altitude is such that blankets are needed at night and it is never excessively hot during the day. Naivasha is a little higher up in the air than the top of Mt. Washington. Indeed, the climate of the whole Rift Valley is said to be suited to white men. This matter is being tested by settlers, for large tracts of land have been taken up in different places not far from the railroad, and there are many Englishmen who are going into stock raising. Near the lake, at Morendat, the government of Kenya Colony has started an experiment farm and there are big ranches in the immediate vicinity. There are no tsetse flies here, for even in the tropics the tsetse is seldom found at an alti-

Mr. Carpenter, who is five feet eight inches tall, cannot reach more than half way up the tall stalk of the elephant grass. It has been introduced from Africa into some of our Southern States and makes a coarse forage crop.

The Nandi are among the most warlike of the tribes, and before they were overcome by the British were the terror of more peaceful neighbours. Like the Masai, they bleed their cattle and drink the blood hot.

tude over four thousand feet. The zebras, which one sees by the hundreds in almost any ride over the valley, are evidences that horses will thrive. There are also many ostriches, and in time we may have ostrich farming here as in South Africa. The average elevation of the lake valley is something like six thousand feet, and the grass is said to be luxuriant everywhere.

This is one of the strongholds of the Masai race, who have always been noted as warriors and stock raisers. I see them about Naivasha, and not a few still carry spears and shields. They have many little towns near by, and their settlements are scattered throughout the Rift Valley. They live in huts about four feet high, six feet wide, and nine feet long. The huts, which look like great bake ovens, are made of branches woven together and plastered with mud. Sometimes they are smeared over with cow dung, which material often forms the floors. When it rains, skins are laid over the roofs to protect them. The houses are usually built in a circle about an inclosure, in which the cattle are kept at night. The sheep and goats are allowed to run in and out of the huts. Some of the towns have fences of thorns around them to keep out the wild beasts.

These Masai are a fierce-looking people. The men are tall and straight, and walk as though they owned the earth. When they have their war paint on, they use a decoration of ostrich feathers which surrounds their faces, and is supposed to carry terror to the souls of their enemies.

These natives are by no means pure Negroes, but belong to the Hamitic-negroid or non-Bantu group. Their skins are dark brown, their noses are often straight, and their

lips not very thick. I can't tell you whether their hair is woolly or not, for the women shave it close to the scalp, using razors of iron or glass, and polish their heads with grease so that they fairly shine in the sun. I understand they pull out the hair from all parts of their bodies and that even the babies are shaved. Many of the men carry about tweezers of iron to pull the hairs from their chins, cheeks, and nostrils, and they keep themselves shaved until they are old enough to be warriors. This comes along about the time they reach manhood. They then let the hair of their heads grow and plait it into pigtails, which they frequently wear down over the forehead. The head, along with the rest of the body, is often anointed with oil and red clay. The warrior sometimes wears a lion's head and mane in addition to the circle of ostrich feathers about the face. His arms are a sword and a club. He has a spear with a very long blade and an oval shield bearing figures which indicate his clan.

Like the Kikuyus and Nandi, these people buy their wives. Marriage, however, is not supposed to take place until the Masai becomes an elder—that is, until he reaches the age of about twenty-seven or thirty. This is after his fighting days are over and he is ready to settle down, as it were. The warriors and the young girls of the tribe live together up to that time in a separate establishment apart from the rest of the people.

In order to marry, a warrior has to ask permission of the elders of the tribe. If this is given, he straightway buys his wife. If she is a good-looking girl she will cost him two cows, two bullocks, two sheep, and some goatskins. This money goes to the nearest relative of the woman he has selected, who may lower the price if he will. Divorces

may be had for laziness and bad temper on the part of the wife; and in such cases a part of the marriage fee is sometimes returned. A widow cannot marry again. If her husband dies, the relict goes back to her mother, or to her brother if her mother be dead.

As far as I can learn these Masai girls have a soft snap. They are required to do nothing until they are married. Before that they play with the warriors, spending their time in dancing and singing and loafing about. The unmarried girl often does not do her own cooking. This condition continues for a long time after marriage and up until all the babies of the family are fairly well grown. As soon as that is accomplished, however, the hard-working period begins. Almost all the hard labour of the tribe is done by the older women, who collect the firewood, build the mud houses, and gather the cow manure with which their walls are smeared. When the villages are moved from place to place, these withered dames take the parts of donkeys and bullocks in carrying the burdens, and then erect the new huts.

These Masai are a nation of stock raisers and own herds of cattle, sheep, and goats, which they drive about from pasture to pasture in the Southern Reservation where the British Government has put them. The cattle are of the humped variety like the sacred cows of India, many of them being fat, sleek, and fine looking. Some of the animals are branded, and not a few have rude bells of iron so they may be traced if they stray. Most of the cattle are watched by half-naked boys, who drive them about with sticks. Morning and evening the cows are brought into the villages to be milked, and nearly every town of mud huts has its cow houses. The women

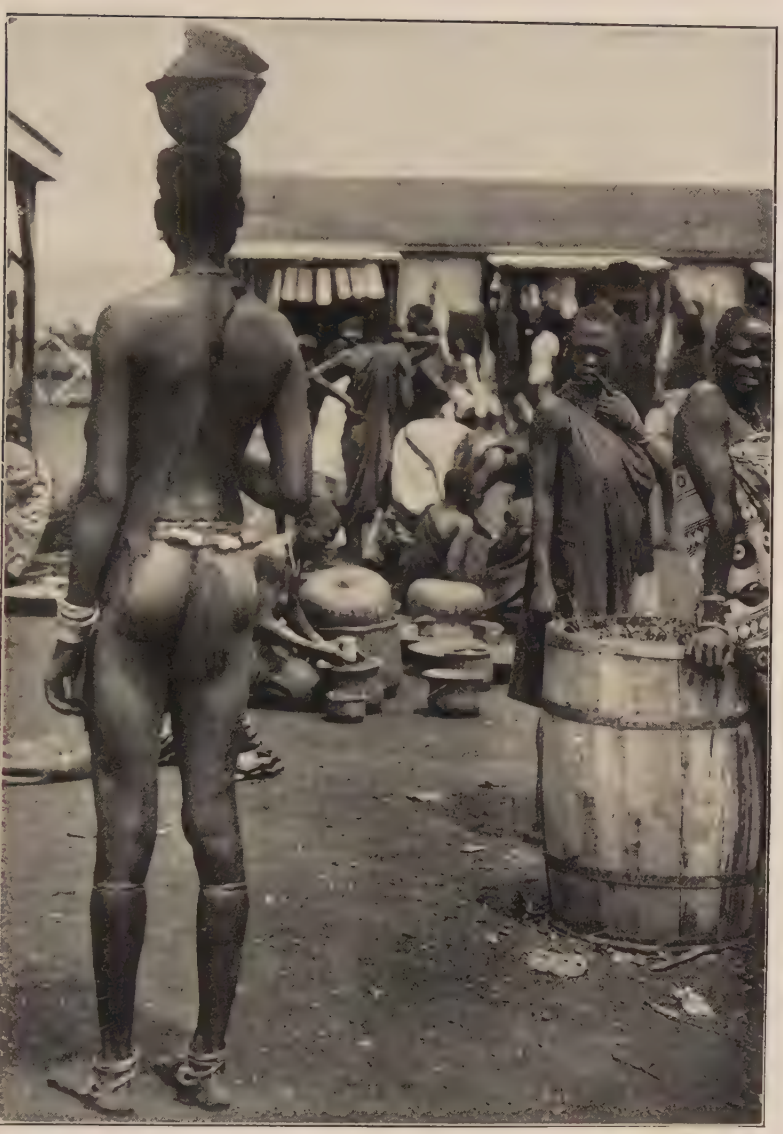
do the milking This is contrary to the custom in some parts of Africa, where it is thought the cows will go dry if any female touches them. The milk is caught in gourds which are afterward cleaned with handfuls of burnt grass. The people always drink their milk fresh, but their method of cleaning the gourds gives it a smoky flavour. If a calf dies, it is skinned and stuffed with straw and then placed under the cow's nose at milking time, for the natives say the cow will not "let down" her milk unless the calf is alongside.

The Masai are blood drinkers. Their country has practically no salt, and I am told that they make up for this lack and keep healthy by blood drinking.

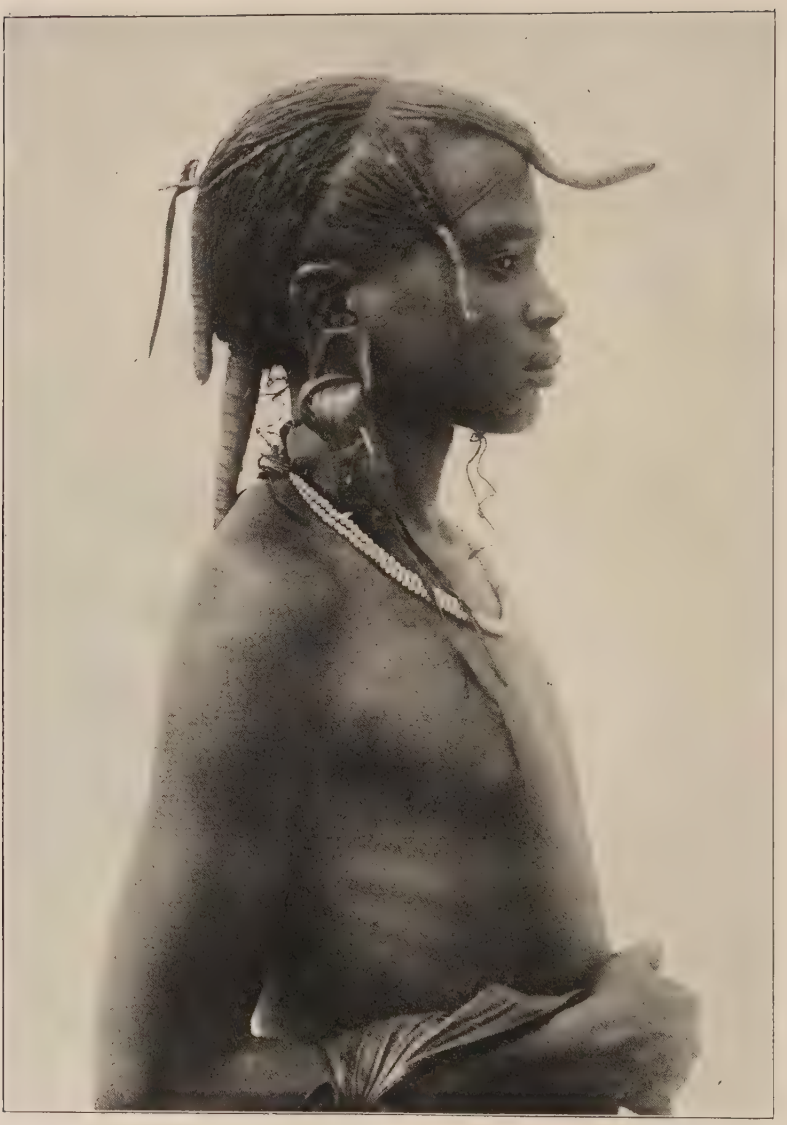
The people eat but few vegetables and, strangely enough, do not kill or eat game. They do no farming whatever. Their cooking is usually done in pots of burnt clay varying from eight to twenty inches in height. The larger pots are not placed over the fire, but at the side of it, and are turned around, now and then, in order that they may be evenly heated.

Much of my information about the Masai comes from Captain Sidney L. Hinde, who has had a long experience in Africa as an official, explorer, and lion hunter. He has written some books upon the Congo and other African countries, and knows much concerning this part of the world. My talk with Captain Hinde was at Mombasa, in a beautiful cottage overlooking the Indian Ocean. Upon the floors were skins of lions and leopards killed by Captain or Mrs. Hinde, and on the walls were the heads of giraffes, antelope, and gnus shot by her.

The evolution of a British colony and how John Bull assumes the white man's burden can be read between the



The Kavirondo wear little in town and less in the country. The tassel hanging from the waist at the back is the tribal mark of a married woman, while anklets of telephone wire are the style for both men and women.



By putting larger and larger objects in the lobes of their ears the natives stretch them into great loops of flesh, sometimes so long as to be tied under the chin to keep them from catching in going through the bush.

lines of my conversation with these people. Said Captain Hinde:

"When Mrs. Hinde and I first came into the province the country was in the same condition it had been in for ages. We found that it contained about a million people, who lived in little villages, each containing about ten huts or so. There were no great chiefs. Each village was independent and almost constantly at war with the neighbouring villages. The citizens of one settlement knew nothing of those of the other settlements about. A man dared not venture more than ten miles from his home, and he had little knowledge of the country outside that radius. There were no roads whatever excepting trails which wound this way and that over the land. The only meeting places were at the markets, which were held at fixed points on certain days of the week or month. It is a rule throughout Africa that warfare and fighting must be suspended on market days, and no one dares bring arms to a market or fight there. If he should engage in fighting and be killed, his relatives cannot claim blood money.

"When we took possession of the Kenya province we had to fight our way in. As soon as we had subdued the people, we made them work at making roads as a penalty for their insurrection. We connected all the villages by roadways and gave each town so much to take care of. As a result we now have in that province alone several hundred miles of good wagon roads each ten feet wide. We have also made it the law that all roads shall be treated in one respect like a market place. This means that no native can assault another while walking upon them and that all feuds must be buried when travelling over the

highways. Many of these roads connect villages which were formerly at war with each other, and the result of the law is that they have become peaceful and the citizens can now pass safely from one town to another. They are really changing their natures and are going through a process of travel-education. As I have already said, five years ago they never left home. Now thousands of them go over our thoroughfares down to the seacoast, and we have something like eighteen hundred natives of Kenya here at Mombasa."

The British have found the Masai such good cattlemen that they believe they can train them into good grooms for horses. Another feature of British dealings with the natives is the establishment of trading posts in the native reserves. Here the Africans are encouraged to set up little stores of their own. It is hoped that this will develop wants and help civilize the more backward groups, like the Masai, until they become as enterprising as the Bagandas and Kavirondos.

CHAPTER XXXVI

WHERE THE MEN GO NAKED AND THE WOMEN WEAR TAILS

UNFURL your fans and take out your kerchiefs to hide your blushes. We are about to have a stroll among the Kavirondo, who inhabit the eastern shores of Lake Victoria on the western edge of Kenya Colony. These people are all more or less naked, and some of the sights we dare not describe. We have our cameras with us, but our Postmaster General would not allow some of our films to go through the mails, and no newspaper would publish certain pictures we take.

We are in the heart of the continent, on the wide Gulf of Kavirondo on the eastern shore of the second greatest fresh-water lake of the world. That island-studded sea in front of us is Lake Victoria; and over there at the northwest, less than a week's march on foot and less than two days by the small steamers which ply on the lake, is Napoleon Gulf, out of which flows that great river, the Nile. With the glass one may see the hippopotami swimming near the shores of Kavirondo Bay, while behind us are plains covered with pastures and spotted with droves of cattle, antelope, and gnu, grazing not far from the queerly thatched huts of the stark-naked natives.

The plains have a sparse growth of tropical trees, and looking over them we can catch sight of the hills which steadily rise to the Mau Escarpment of the Great Rift Valley. Still farther east are the level highlands of Kenya

Colony, the whole extending on and on to Mombasa and the Indian Ocean, as far distant from Kisumu as Cleveland is from New York. I have been travelling for days in coming the five hundred and eighty-four miles which lie between us and the ocean.

Kisumu, formerly known as Port Florence, is the terminus of the Uganda Railway, the principal port of Lake Victoria, and quite a commercial centre. Steamers sail from Kisumu weekly to Uganda ports and back, and fortnightly round the lake by alternate routes, i.e., north and south. The trade is greatly increasing, and ivory, hides, grain, and rubber from Tanganyika Territory, the Upper Congo, and the lands to the north of the lake are shipped through here to the coast. The cars come right down to a wooden wharf which extends well out into the Kavirondo Gulf. On the lake are several small steamers, brought up here in pieces and put together, which are now bringing in freight from all parts of this big inland sea.

At the custom house inside an enclosure close to the wharf the travellers had to pay a fee of fifty cents a package on all parcels except personal luggage. I was glad we got in before six-thirty, the closing hour for all custom houses in Uganda ports, for after that if I were carrying a parcel I should have to slip five rupees to the official in charge.

Kisumu is just a little tin town in the African wilds, yet there is a hotel where one can stay quite comfortably until he takes the steamer for the lake trip. There is an Indian bazaar near the station, but the post office, the few government buildings, and most of the residences are built on the hill to get the breeze from the lake. The Victoria Road and the Connaught Promenade are well laid out.

Near the station there is a cotton ginnery where considerable quantities of cotton from Uganda are ginned and baled for export. A trail leads across country from Kisumu to Mumias, forty-eight miles away, and to Jinja, the source of the Nile.

The European population consists of some soldiers belonging to the King's African Rifles, of the government officials, and of some employees of the railroad. The officials put on great airs. Among the passengers who came in with me yesterday was a judge who will settle the disputes among the natives. He was met at the cars by some soldiers and a gang of convicts in chains. The latter had come to carry his baggage and other belongings to his galvanized iron house on the hill and each was dressed in a heavy iron collar with iron chains extending from it to his wrists and ankles. Nevertheless, they were able to aid in lifting the boxes and in pushing them off on trucks, prodded to their work all the while by the guns of the soldiers on guard.

But let us "take our feet in our hands," as Uncle Remus says, and tramp about. Later on we may march off into the country through which I travelled for about fifty miles on my way here. In the town itself we may now and then see a man with a blanket wrapped around him, and the men frequently wear waist cloths behind or in front. Outside of the town they are stark naked. All have skins of a dark chocolate brown. They have rather intelligent faces, woolly hair, and lips and noses like those of a Negro. They belong to the Bantu family and are among the best formed of the peoples of Africa. Some one has said that travelling through their country is like walking through miles of living statuary.

Take these Kavirondo men who have gathered about me just now as I write. Some of them look as though they might have been cut from black marble by a sculptor. Look at those three brown bucks at my left. They are as straight as Michelangelo's famed statue of David and about as well formed. See how firmly they stand on their black feet. Their heads are thrown back and two have burst out laughing as I turn my camera toward them. With my eye I can follow the play of all their muscles as they slip beneath those smooth ebony skins. The Kavirondo seem the perfection of physical manhood. That nude fellow next me has a coil of wire about his biceps and a pound of wire on his right wrist. He is smoking a pipe, but it just hangs between his teeth, which shine out, flashing white as he smiles.

The man next him has two brass rings on each of his black thumbs, bands of telegraph wire around his wrists, and two wide coils of wire above and below the biceps of his left arm. He has five wire bands about his neck, circles of wire under each knee, and great anklets of twisted wire on each of his feet. As I look I can see the calloused places where the wire has worn into his instep. There are worse ones on that third man whose ankles are loaded with twisted wire. The latter must have several pounds on each leg, and the wire on the right leg extends from the foot to the middle of the calf.

Now look at their heads. The first man has short wool which hugs the scalp, and the other two have twisted their hair so that it hangs down about the head like Medusa's locks.

Stopping for a moment, I ask the men to turn around so I may get a view from the rear. They are not quite so

naked as I had supposed, for each has an apron of deerskin as big as a lady's pocket handkerchief fastened to his waistband behind. The aprons, tanned with the fur on, are tied to the belts with deerskin straps. As far as decency goes, they are of no value at all, and they seem to be used more for ornament than anything else.

Let us train our cameras now on the women. They are by no means so fine looking as the men, being shorter and not so well formed. The younger girls are clad in bead waist belts, while the older ones have each a tassel of fibre tied to a girdle about the waist. This tassel is fastened just at the small of the back and hangs down behind. At a short distance it looks like a cow's tail. I am told that it is an indispensable article of dress for every married woman, and that it is improper for a stranger to touch it. Sir Harry Johnston, who once governed these people, says that even a husband dares not touch this caudal appendage worn by his wife, and if, by mistake, it is touched, a goat must be sacrificed or the woman will die from the insult.

Some of the native women here in Kisumu wear little aprons of fibre, about six inches long, extending down at the front. I can see dozens of them so clad all about me, and for a penny or so can get any of them to pose for my camera. The young girls have no clothes at all. This is the custom throughout the country. Indeed, farther back in the interior the fringe aprons are removed, and both sexes are clad chiefly in wire jewellery of various kinds.

The strangest thing about the nudity of these savages is that they are absolutely unconscious of any strangeness in it. Such of them as have not met Europeans do not know they are naked; and a married woman with her tail

of palm fibre feels fully dressed. A traveller tells how he tried to introduce clothing to a gang of naked young women whom he met out in the country. He cut up some American sheeting and gave each girl a piece. They looked at the cloths with interest, but evidently did not know what to do with them. Thereupon the white man took a strip and tied it about the waist of one of the party. Upon this the other girls wrapped their pieces about their waists, but a moment later took them off, saying: "These are foreign customs and we do not want them."

During my stay in the Kavirondo country I have gone out among the villages and have seen the natives in their homes and at work. The land is thickly populated. The people are good natured, enterprising, and quiet. One can go anywhere without danger, and there is no difficulty in getting photographs of whatever one wants.

I am surprised at the great number of married women. One knows their status from those sacred tails. The Kavirondo girls marry very early. They are often betrothed at the age of six years; but in such case the girl stays with her parents for five or six years afterward. The parents sell their girls for a price, a good wife being purchasable for forty hoes, twenty goats, and a cow. In the case of an early betrothal the suitor pays down part of the fixed sum and the rest in installments until all is paid. If the father refuses to give up the girl when the time comes for marriage, the payments having been made, the suitor organizes a band of his friends, captures her, and carries her home. A man usually takes his wife from a different village from that in which he lives. When he comes with his band to the bride's village, her gentlemen friends often resist the invasion and fight the suitor's

The witch doctor's life is safe only so long as the people believe he has power to break up spells cast upon men or cattle by evil spirits. Most of them come to their end by violence.

The British provide for the men who uphold the banner of empire in East Africa homes that are not only clean but attractive. They have succeeded far beyond any other nationality as administrators over the millions of primitive blacks.

The Masai, long noted as warriors and cattlemen, live in huts made of branches woven together and plastered with mud, so that their homes look from a distance like so many bake-ovens.

party with sticks. At such times the girl screams, but I understand that she usually allows herself to be captured.

I hear that old maids are not popular and that the average Kavirondo girl is just as anxious to be married as are our maidens at home. Indeed, she is usually so uneasy that, if she does not get a bid in the ordinary way, she will pick out a man and arrange to have herself offered to him at a reduced rate. There are plenty of plump Kavirondo maidens now on the bargain counter.

Another queer marriage custom here affects a man's sister-in-law. The man who gets the eldest girl in a family is supposed to have the refusal of all the younger ones as they come to marriageable age. The polygamous Kavirondo may thus have several sisters among his wives.

One would suppose that these girls might be rather loose in their morals. On the contrary, I am told that they rank much better in this regard than the maidens of Uganda in the province adjoining, nearly all of whom wear clothing. Virtue stands high here, and infractions of its laws are always punished, though less severely now than in the past. Divorces are not common, but a man can get rid of his wives if he will. One curious custom decrees that if a husband and wife have a quarrel, and she leaves the hut and he shuts the door after her, that action alone is equivalent to a divorce and the woman goes back to her own people at once.

But let us go out into the country and look at some of the Kavirondo villages. I have visited many and have had no trouble whatever in going into the houses. There are numerous little settlements scattered over the plains between here and the hills, with footpaths running from

village to village. Most of them are small, a dozen huts or so forming a good-sized settlement.

The roof usually projects beyond the walls of the hut, covering a sort of veranda, a part of which is inclosed. There are poles outside supporting the roof of the veranda.

The huts are usually built around an open space and are joined by fences of rough limbs and roots, so that each collection of huts forms a stockade in which the animals belonging to the village can be kept at night. Sometimes a village may be made of a number of such circles, each collection of huts belonging to one family. One of the shacks is for the polygamous husband and one for each of his wives.

Let us go inside one of the houses. We stoop low as we enter. The floor is of mud, with a few skins scattered over it. The skins are the sleeping places. Notice that little pen at the back, littered with dirt. That is where the goats sleep. The chickens are put in that tall basket over there in the corner and are covered up until morning. Except for a few pots, there is practically no furniture. The cooking is done in clay vessels over that fire in the centre of the hut, and the food is served in small baskets, the men eating first and the women taking what is left.

Outside each house, under the veranda, is the mill of the family, which consists of a great stone with a hole chipped out of the centre. The women grind Indian corn or sorghum seed in such mills, pounding or rubbing the grain with a second stone just a little smaller than the hole. In the grinding, bits of the stone come off and are mixed with the meal, often causing chronic indigestion.

Some of the older Kavirondo villages are nothing but cemeteries. The people are superstitious and want to be

buried in the places in which they have lived. When a chief dies, his body is interred in the centre of his hut. He is placed in the grave in a sitting posture, just deep enough to allow his head and neck to be above ground. The head is then covered with an earthen pot, which is left there until the ants get in and clean off the skull. After this the skull is buried close to the hut or within it and the skeleton is taken out and reburied on some hilltop or other sacred place.

Ordinary people are buried in their own huts lying on their right sides with their legs doubled up under their chins. The hut is then left and forms a monument to the dear departed. Where there have been epidemic diseases one may sometimes find a whole village of such houses occupied only by the dead. The huts are left until they fall to pieces.

The Kavirondos are a stock-raising people. I see their little flocks of sheep and goats everywhere, and frequently pass droves of humped cattle. Fat cows graze over the plains, usually in droves watched by cowherds. Every drove has a flock of white birds about it. Some of the birds are on the ground, and some are perched on the backs of the cattle, eating the insects and vermin they find there. They are probably the rhinoceros birds, which feed on the flies and other insects preying on those great beasts and which, by their flying, warn them of the approach of danger. The cattle are driven into the villages at night or into small inclosures outside. The women do the milking, but are not allowed to drink the milk, although they may mix it with flour into a soup.

This Kavirondo country is very rich. All over the plains from here to the mountains the trees have been cut

off, but the ground is covered with luxuriant grass. Near the villages are little cultivated patches in which the natives raise peanuts, Indian corn, and a millet-like sorghum. I see them everywhere digging up the black soil. Their naked bodies are almost as dark as the dirt they are hoeing. The British are developing the Kavirondos as general farm workers. Their wages range from three to five rupees a month.

Around Lake Victoria and all along the Uganda Railway large tracts of land have been taken up by Europeans, and some of this is being ditched and drained. I gather that it is the intention to turn the whole into one great cotton plantation, and see no reason why that should not be done.

THE END

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